of the Registrar
of Books, Madras
OFFICE OF THE R... 14 ... 1898 ... MADRAS ... BOOKS

THE

IAN JOURNAL

OF

EDUCATION

RLY THE MADRAS JOURNAL OF EDUCATION.)

{MADRAS JOURNAL OF EDUCATION INDIAN JOURNAL OF EDUCATION} VOL. VI.

JANUARY 1898.

IE NEW SYLLABUS FOR MENTAL AND MORAL SCIENCE.

Logic and Physiology to stand as emended.

Psychology :—

ler *Intellect,* there is not enough prominence given to the of Perception, by far the most important question in ogy proper. Mr. Sathianadhan would very sensibly bring ual perception of space and distance,' relegated to another of the present syllabus. But why only visual perception ? d be better to put :—

tellect. Attention and Apperception. Perception. Object-pace-Perception. Localisation. Local signs. Memory; the of Association. Imagination. Conception. Judgment. oning.

Mr. Sathianadhan urges that Attention and Apperception be specially included. They should come in here. Perception of course means tactual and visual. Distance, form, position,

184684

etc., come under Space. The Localisation of Se[
various theories of the local sign cannot be omitte[
Association come more properly, according to mode[
Memory. The advantages and disadvantages c[
classification of Perception, Memory, etc., may be d[
The Faculty hypothesis above. As long as the [
understood as purely logical, it serves its purpose bet[
which is open to the same objections and certainly d[
out with the same clearness the various aspects of men[

Under *Will*; for 'motives' put 'motive.' Add to [
Self-Determination.

Under *Consciousness*, it is perhaps too much t[
present any recognition of the pioneer work of the [
similar investigations in America or on the Continent[
Mr. Scripture who in a recent book * dismisses the wh[
as unworthy the attention of the serious scientist, the [
dent of Psychology should know something of the fact[
now admitted by every person who takes the trouble to [
himself,—and of the theories current which seek to exp[
It needs no prophet to see that in this direction vast [
opening up for the psychologist of the future, and when [
James' great man comes along, who shall do for Psychol[
has been done for other sciences, doubtl[ess i]n his buil[
materials and foundations prepared by Mr. Myers and his [
workers will not lie unused. 'I know of no scientific wor[
Professor Oliver Lodge, one of the comparatively few real[
tific men who dares be unorthodox in this matter, 'I kno[
scien[tific] work now in process of construction which is l[
stand on an eminence superior to his (Myers).' One may be p[
ed for dwelling on this topic—with which perhaps [
student is not specially concerned—when one recollects wha[
attitude of the ordinary educated and thinking man with reg[
it. The cocksureness and superficial scepticism which often [
for thought here as elsewhere, in an age which [
enlightened and agnostic, needs to be combated whenever it [
the field—as in Mr. Scripture's new work—if not with it[
weapons, at least with a counterblast as strong. In Sir W[

* The New Psychology. Contemp[orary] Science Ser[ies].

101684

Crookes' words, surely an opinion that carries some weight with a scientific man, 'Those who deny that these things (*i.e.*, the phenomena investigated by the S.P.R.) do occur, are simply ignorant.'

Instead therefore of 'unconscious mental modifications,' etc., substitute: Grades of consciousness. The sub-conscious. The unconscious. Theories of the transcendental and subliminal self. Personality. Alteration of Personality. Abnormal consciousness. Hallucination. Sleep. Dream. Hypnosis. Telepathy and Clairvoyance.

In 'consciousness as a feeling of Relation, etc,' omit 'between subject and object.'

Apperception should be dealt with elsewhere, under Intellect.

The antiquated speculations of Stewart, Hamilton and the rest on this subject should be relegated to the limbo of outworn creeds. In the face of the facts, 'unconscious cerebration' and similar hypotheses no longer hold, when accurately applied all over the field they are supposed to cover.

Illusions, of course, come under Perception, above.

It may raise a smile on the face of the orthodox to read the last two items mentioned. What other syllabus now in vogue in any quarter of the world, thinks of including such tomfoolery in a serious course of Psychological science? Shall Madras University be the first to do so? Even so. Let Madras be the first.

In so acknowledging these phenomena as coming within the strict sphere of scientific fact, and susceptible of the accurate methods of observation and experiment, the Madras Board of Studies will not be unsupported by some of the most vigorous and farseeing intellects of the day. So rapid has been the spread of new light in this direction, thanks to the energy and perseverance of Mr. Myers and other explorers (not necessarily all members of the P. R. S.), that there is now hardly a branch of the natural sciences that cannot show at least one well-known representative willing to subscribe to the genuineness and authenticity of the facts in question. Not to mention the veteran co-discoverer of the great scientific principle of modern times, we have past or present occupants of chairs of Biology, Physics (2), Chemistry, Economics, Psychology, Logic, Moral Science, and Mathematics. This is omitting Professor Balfour Stewart and his colleague Prof. Tait.

De Morgan himself was born in this Presidency, and Prof. Crookes once colleague of Mr. Pogson, the late Principal of the Madras Observatory. This list is solely confined to great English or English-speaking men. In America, in addition to Prof. James, perhaps the most celebrated recent convert, as he has himself shown us in his 'Principles of Psychology,' and a still later publication*, we have Professor Langley of the Smithsonian Institute. On the Continent, the witnesses from the ranks of science are perhaps even more numerous, Prof. Richet, the physiologist, being amongst them.

As this goes to press, in the current number of 'Cosmopolis,' that shrew critic, Mr. Andrew Lang whose recent activity would render it probable that he has long been hesitating to make the plunge, has thrown in his lot with the above-mentioned scientific experts, and frankly admitted his conviction, the result of a series of experiments, that communication between mind and mind by means other than the known channels of sense, is as much a fact as anything else.

Coming now to what is termed the 'General Philosophy,' Mr. Sathianadhan's emendations are to be commended. But it is not quite certain whether enough importance is attached by him to the Kantian system. Hitherto the Syllabus has almost totally ignored Kant. It is about time this was altered. Further, Mr. Sathianadhan expressly declares that he wishes to see some recognition of the Neo-Kantians, the Oxford School in particular. But one looks in vain for any mention of T. H. Green either in this or any other portion of the Syllabus.

It is true that some portion of Kant may be set now and again as a special text-book in the section 'History of Philosophy.' But this is not sufficient. Room should be found for the subjects dealt with under 'Metaphysics of Knowledge,' as a permanent part of the course. More especially as Mr. Sathianadhan wishes to include Green's Ethical Theory, if the purely Kantian element is to be ignored, at least the student should know something of the metaphysical basis on which Green rests his Ethics. Otherwise the latter may be entirely misunderstood or appear as a gigantic *petitio principii.*

---

* The Will to Believe: Longmans 1897.

Instead of insisting on the profitless discussions as to 'innate ideas' carried on by Locke and Leibniz, it would be much more to the point to add to the epistemological theories of Plato, Aristotle and Herbert Spencer, some account of the views of a modern metaphysician and poet. :

Kant. Green. Green's Theory of Consciousness. The synthetic unity of Apperception. Theoryof Relations. Modern Idealism.

The connexion of Metaphysics with Ethics should be also brought out. The section 'Metaphysics and Ethics' in the present Syllabus does not properly do this.

The 'Relativity of Knowledge' included under the heading 'Cosmological Theories,' surely ought not to be separated from 'The philosophy of the conditioned' in the next section.

To the list of books recommended should be added perhaps Deussen's 'Elements of Metaphysics' which is just the book for Indian Students; Ryland's Psychology, now entirely re-written, and in every way suitable as an introduction to the bigger books; and lastly Green's Prolegomena, Part I.

In Ethics :—

Under Theory of Ethics, for 'The Nature of the Ethical Judgment', read 'Nature and Evolution of the Ethical Judgment,' inasmuch as the new Syllabus purports to recognise the modern scientific methods of Sociology. This appears most important. The double system of classification of Theories does not seem very satisfactory. The old method might well be abolished altogether, Substitute :—

The End as Happiness. Forms of Hedonism. Psychological. Egoistic. Utilitarianism. Evolutionary Hedonism.

The End as Duty or Obedience to the Moral Law. Forms of Intuitionism. The Law of Reason. Kant's Ethical System.

The End as Self-Realisation.

The Relation of the individual to society and the whole question of Egoism *v.* Altruism should be also mentioned as a special item.

Under '*Applied Ethics,*' include 'Relation of Ethical Theory to Practice.' There should also be some recognition of the Concrete Moral life. The present omission is unpardonable. 'The relation of man to social institutions. Rights and obligations. Ethics and Politics' should be dealt with.

Nor, again, can Moral Progress be ignored. Add therefore, Moral Progress. Absolute and Relative Ethics. Meaning of Absolute Morality. The Evolutionary and Idealist view. All these items seem most important and necessary in a course of Ethical Science.

Under the last heading '.Metaphysics of Ethics,' the ontological basis of Ethics should be discussed, as mentioned above.

To the list of English Ethical Theories, the name of T. H. Green should be added if the Syllabus is to be brought up to date.

Finally, the 'Prolegomena to Ethics' should be amongst the recognised text-books of the University.

As to the selected portions in the History of Ethics, a word must be said. At present this is only one small part of the Philosophical course, and nobody supposes that as much time ought to be given to it by the student, as to the rest of the curriculum for 'Ethics.' Indeed, so much has the student to do already, what with the other subjects he has in hand, and the length of the course itself, that as a general rule only the fag end of the last term can be devoted either by the teachers or the pupils to the subject. Exclusive of this portion, the Ethics alone is itself as big a subject as any the world over, with wide room for infinite selection of questions by the examiner, or infinite display of thought or originality on the part of one student. It is here that a candidate's real ability may be tested, and his answers valued accordingly.

But in the selected portion, which generally consists of some one book (or rather notes thereon) which is used by all alike, and which is more or less committed to memory as a series of facts, and from which questions are set of the usual stereotyped description, it is not so. Here all candidates are reduced to one level, and good, bad, and indifferent produce much the same answers. That the value of the marks scored for this portion (often the result of the merest cramming) should be the same as those for the *whole* of the rest of the Ethics Syllabus, where the same methods cannot be so successful, is as absurd as it is unfair.

The same remarks apply to the Psychology portion. The system of marking in vogue in Madras University is often curious, but in this case any one who has taught the subject knows that the 7? marks on the Ethics paper is out of all proportion to the

work and ability it represents when compared with the value of the other paper. It would be no great loss if both the special portions were cut out of the Syllabus altogether. Until the whole course undergoes reform, and the time can be given to the Mental and Moral Sciences which would enable them to be studied as they should be, they can be dispensed with. It is an open secret that the selected books are never really read by the students. And for other reasons, this part of the course is the most perfunctory and unsatisfactory.

But if they are to stand at all, marks should be assigned to the papers thereon with some regard to the value assigned to those on the rest of the Syllabus.

E. D.

THE MADRAS EDUCATIONAL CONFERENCE.

Thanks to the excellent arrangements of the Secretaries of the Teachers' Guild and of Dr. Bourne, Madras teachers of all grades and varieties have recently had the opportunity of spending two most interesting days in the Central Musuem, Egmore, in discussing a number of important matters connected with education. The large lecture hall, with its pretty decoration and fine proportions, is always a pleasant place for an entertainment, and is specially suitable for all-day sittings as its convenient doors and verandahs allow one to move about at will and obviate any feeling of restraint. It is no wonder, therefore, that the Second Educational Conference, held on December 22nd and 23rd, should have been a distinct success, and left many pleasant memories behind. The programme was a strong one, the subjects dealt with had plenty of variety, the papers were distinctly good, and there was no lack of short but vigorous speeches. It was easy to see that those who took part in the discussions were thoroughly in earnest and thoroughly practical: there was a distinct absence of flabbiness and rant, which one often expects in large meetings, and a remarkable unanimity of opinion combined with a ready tolerance for the views of a minority, however small. All this augurs well for the real usefulness of these

conferences. The general tone of the meeting was a progressive conservatism, or perhaps it would be better to say a cautious and tentative liberalism: in these days the two are difficult to distinguish. There was, too, a pleasant flavour of oligarchy, refreshing in these days of dictatorial democracy, for the resolutions to be put before the meeting had to be proposed by a small sub-committee, and were only put to the vote if the Conference appeared to be practically unanimous. It is obvious therefore that a body of men working under rules of this kind can hardly be considered rash.

The meetings were timed to begin at 10-30 A.M., and to close at 5 P.M., each day, with an interval of about an hour or an hour and a half for refreshments which were supplied on the spot. These were decidedly well done, and consisted of a light tiffin and afternoon tea for Europeans, with special meals for Brahmins and other Hindus.

The attendance, especially of Mofussil educationists, was most encouraging, as over three hundred teachers were present at one time or other, and a very large number were there almost the whole time. It is of course difficult to get days that suit Madras and Mofussil teachers equally well, and no doubt if the Conference could have been held a week earlier more Madras professors would have been present, but this would probably not have suited the Mofussil examiners. We trust that the professors of first-grade colleges in Madras will put in a better appearance at future conferences, the aims of which are such as must commend them to all men with their hearts in their work. At present there seems a tendency on the part of some otherwise estimable men to consider that the college professor is above and beyond the sphere of educational conferences, and that he can get no good by attending them, or indeed any meetings on educational subjects. That this is a mistake we are fully convinced. None, however great his talents and reputation, can afford to neglect such means of getting to learn more of his own deficiencies and of other people's ideas; unfortunately there are always many people who pay a great deal too much attention to other people's deficiencies and their own ideas. Teachers' Guilds and Educational Conferences are meant for *all* teachers, whether first-grade college professors, or high school masters, or primary school teachers, and it is a privilege to join in

an assembly of so representative a nature. We don't want men who stick their noses in the air and sniff at such meetings: these men are snobs, and the sooner they drop either their snobbishness or their profession the better for it and them. But we do want the able and energetic European professors of Madras to show enough interest in their work to take part once a year in an Educational Conference in which hundreds of teachers of all ranks and from all parts of the presidency are met together. Surely it is not too great a sacrifice to make in the interests of that calling which some of them profess on platforms to regard as the noblest of all. If they really believe this, as they say they do, then let them show it in deeds and not words, by doing their best to bring about that union and consolidation of all teachers in one great brotherhood which is so well shown in meetings of this kind.

The first session of the Conference was held on the forenoon of Wednesday, 22nd December, and was opened by the Hon. Mr. G. H. Stuart, Principal of the Presidency College, in an interesting and thoughtful speech. Mr. Stuart very properly and at the same time very judiciously emphasised the real importance and dignity of the teacher's work, and the very serious responsibility that rests upon him in training up the good citizens of the future, while he gracefully demolished the somewhat archaic view of the teaching profession which still obtains in some benighted circles of Madras society, and neatly contrasted the work of a professor with that of a member of the "best paid service" engaged in the Secretariat. Mr. Stuart drew attention to the importance of teaching good manners, and suggested that pupils might be taught "that humility, though it may be an overrated virtue, is still after all one of the virtues, and that ordinary politeness is rather pleasing than otherwise, and runs no risk of being mistaken for servility." Turning to another subject, the speaker deprecated those floods of obvious advice on the elements of teaching which the estimable and inexperienced feel it their duty to well forth. Here we would hazard the opinion that the fire and brimstone condemnation of all things educational by the casual Olympic epigram-hurler is equally unnecessary and even less useful.

There was, however, one feature in the Opener's speech which calls for further comment, that is his apparent belief that the Educational Conference was meant specially for those engaged in school

work, and hence that he himself as a college professor was but a stranger in it, hardly entitled to give advice on the education of children. But surely a glance at the programme of the Conference would have been enough to dispel any such idea, for the majority of those who had promised papers were also college professors, and many of the subjects for discussion were certainly such as should interest the head of the chief college in the presidency and the University Member of the Legislative Council.

This is the more to be regretted as it was probably largely responsible for the remarkable disappearance of the Opener on the conclusion of his own speech, before he had heard a word of the Conference, and for his absence during the whole of its sittings. It is perhaps unnecessary to point out that the continued absence of the Opener was both a surprise and a disappointment to the many Mofussil members who naturally expected to see something of him during the subsequent proceedings. We trust that this somewhat too literal interpretation of the word *Opening* is not to become stereotyped, and that in future the Opener of the Educational Conference will not be too busy or too weary to spare an hour or two in being bored by discussions on the most important educational subjects. Fortunately, however, an excellent chairman was present in Mr. Cecil M. Barrow, of Palghat, who amply filled the presidential throne.

After the election of the business committee and other preliminaries Rao Bahadur Nagoji Rao read a thoughtful paper on *The Object to be kept in view in the Organisation of Primary Education,*" in which he advocated the devotion of educational funds mainly to giving the lower and poorer classes a sound elementary education in their vernaculars, to securing competent teachers, and to teaching essential rather than fancy subjects. Mr. Nagoji Rao is so highly thought of as an educationist that he needs no recommendation, and it goes without saying that his paper was a masterly and statesman-like one. The use of English as a medium of instruction for pupils below the Lower Secondary standard was, we think, rightly condemned, for we cannot see the use of teaching unknown subjects in an unknown tongue,—which, by the way, is often practically unknown to the teacher also. Mr. Nagoji Rao is a man of sound sense, who at the same time speaks out his mind, the only pity is he does not speak it out a little louder.

The discussion led by Messrs. T. M. Velu Pillai and S. Krishnasawmy Iyer of Kumbakonam was bright, practical, and true to nature, while it showed virtual unanimity of agreement with Mr. Nagoji Rao.

Mr. R. S. Lepper, Principal of Pachaiyappa's College, followed with an address on "*The Duty of the University with regard to Teaching.*" He stoutly supported the idea of a teaching university, and urged the co-operation of the various Madras Colleges in an inter-collegiate lecturing system whereby lectures in any college would be open to the students of all colleges, while at the same time each college should be free to do what it liked with endowments and religious teaching. He showed that this was the only practical way of securing a number of admittedly desirable reforms, such as M. A. and Honors B. A. lectures, private coaching, &c., without any extra cost. In this way, too, class lectures could be reduced to a reasonable number and their quality improved, and original research fostered. Mofussil colleges could in many cases carry out similar arrangements on a smaller scale, and the distances in Madras could be got over by appropriating certain college buildings for the teaching of certain subjects, and by arranging the time-table to suit the convenience of students. It was suggested that a Standing Committee of the University might be appointed to arrange the courses of lectures, the places where they should be delivered, and if necessary to determine the qualifications of lecturers. This last suggestion, though not an essential part of the scheme, raised some opposition, and a very lively discussion followed, mostly turning upon points of detail. There was practical unanimity in the desire for a teaching university, and the scheme suggested seems the only possible way of obtaining one, and would be bound to succeed if it were only started. For the sake of the advantages of the inter-collegiate system the old envious rivalry of individual colleges would fade into a generous competition, and learning would be immensely the gainer. In the course of the discussion Mr. Nagoji Rao suggested that Mofussil Colleges should teach only one special subject for the B.A. degree. Messrs. S. Krishnasawmy Iyer, Satthianadhan and Hoare also took part in the discussion.

After tiffin Mr. M. Seshagiri Sastriar, of the Presidency College, read his paper on the "*Study of Indian Languages and Literature.*"

Among a number of suggestions for the improvement of the teaching of Indian languages we instance the following :—the training of pandits, the writing and translation of scientific grammars into the vernaculars, the search for and study of inscriptions, the establishment of oriental colleges and the improvement of the pay and prospects of good pandits. It is a crying scandal to Madras that it should still lack a really strong oriental college and pay venerable pandits starvation wages. This kind of educational sweating is not only despicable but dangerous, for it tends to discourage all real study of Indian languages especially Sanskrit, and the world cannot afford to encourage ignorance of the priceless literature of the Ancient East.

An interesting discussion followed in which Rev. Mr. Phillips adduced the survival of Welsh to show that vernaculars die hard, Messrs. K. B. Ramanatha Iyer, and V. S. Srinivasa Sastri, of Pachaiyappa's College, insisted on the modernisation of the pandit, and Rev. Mr. Kellett expressed his hope that a new Tamil literature might arise under European influence. Mr. Suriya Narayana Sastri, B.A., a Tamil Pandit of the Christian College, was very entertaining with his experiences of the superior intelligence of the English-speaking Tamil student, and of the lack of demand for good modern Tamil literature. The discussion showed that the Conference was unanimous on the need for steps being taken to encourage and improve the study of Sanscrit and the Vernaculars.

Mr. Barrow then read a paper by Mr. Denham, Professor of History, Maharaja's College, Mysore, on "*the Teaching of History, with special reference to India.*" After having somewhat unnecessarily mangled that much belaboured article in the *Times* on the teaching of History, Mr. Denham proceeded to demolish the reputation of all existing text-books of Indian History, in order, apparently, to bow down before that popular but by no means accurate writer Mr. Romesh Chunder Dutt, whom he actually dubbed a "historian of note" and placed in the same category with a real scholar and historian like Mr. Sundaram Pillai. Yet in spite of these vagaries, and a tendency to stray into questions of general university reform and to emphasise the obvious, Mr. Denham's paper was good in several ways. It pleaded for simpler and more picturesque historical narrative in the form of Historical Readers, for a better sense of proportion, a more careful division into periods and a more satis-

factory grouping of men and nations in the teaching of Indian History. Stress was deservedly laid on the need of teaching history vividly and sympathetically, and on the great importance of maps and illustrations for so doing. Mr. S. Krishnasawmy Aiyar plunged headlong into a discussion of the enormities of the *Times.* When will people realise that Madras is not India, and that though there be no inaccurate school histories in use in Madras, it is by no means impossible that they may be found in Calcutta or Bombay? When also will people take the trouble of reading an article before criticising it? If they do so, they will see that the *Times* article, on a hasty generalisation that history was taught inaccurately in India, (and who would be so bold as to deny this possibility existing in some localities,) urged the importance of accurate history teaching. There was no question whatever of the garbling or doctoring of history, as some silly and unscrupulons people have tried to make out. The British have no need to garble history, and they would be the last people, and the *Times* the last newspaper in the world to propose such a piece of tomfoolery. After a brief discussion the first day of the Conference came to an end, and the members adjourned to fight again the battles of the day over tea and refreshments.

The following day the Educational Conference began rather later, owing to the fact that a large portion of the audience came late, having been engaged in the performance of Hindu Ceremonies. When a sufficient number had arrived Mr. R. S. Lepper was asked to take the chair, and Mr. W. E. Hoare, Principal of Doveton College, read a most interesting and practical paper on the *Teaching of English in High Schools,* which we print at length in another part of this number and which deserves the most serious consideration of all teachers of English in High Schools. Among other points, Mr. Hoare insisted on the use of the reading lesson as a means of teaching idiom and grammar. It was also suggested that the law of copyright might well be extended so as to prevent the publication of unauthorised notes to reading books and text-books. Mr. Hoare's paper was an eminently practical and thoughtful one throughout, and was fully appreciated by all English teachers present.

In the discussion which followed, the Conference appeared to be strongly in favour of the use of a text-book in the Matriculation

course as tending to make the knowledge of English more thorough, and to prevent the cramming up of likely subjects for essays. Mr. Barrow, whose experience in the teaching of English is almost unrivalled in this presidency, also approved of the text-book; and laid stress upon the need of making the pupils give not only correct but grammatical answers in class.

Mr. J. M. Hensman's paper on the "*Use of the Vernaculars in Teaching*," dealt specially with the subject of translating English into the vernaculars, and gave instances of good and bad translation. It suggested that English should not be made the medium for instruction during the first five years of school life.

Mr. Sivasankara Pandiaji, of the Hindu Theological High School, in a paper bristling with quotations from learned men of all kinds, urged the necessity of imparting moral and religious instruction to the young and advocated the employment of a moral text-book. Although the title of his paper was: "*Some Practical Methods of imparting Moral and Religious Instruction to Indian Youth*," the Conference was somewhat disappointed to find that there was comparatively little explanation of how Mr. Sivasankara found religious instruction worked in his High School. There was a lively discussion on the paper, which was a bright and entertaining one, but the general impression seemed to be that the difficulty of religious differences would prevent anything but a colourless book of morals being introduced into Hindu Schools, and that such a book would be of little use. "The best moral text-book," as Mr. Lepper observed, "was the moral teacher," though there was no particular objection to the use of a moral text-book if it could be shown to be of any use.

Probably, on the whole, a really good set of Readers really well taught, and a closer and friendlier relationship between masters and pupils would do much more good, especially if young teachers would join, as masters in England do, in the pupils' games and athletics, instead of rushing away to the Law College whenever the lessons are over. Religious teaching in schools is always a risky experiment, and we are inclined to think that the transitional stage in which Hinduism is at present, is not one in which such an experiment could be safely tried. Later on it may perhaps be possible, but in the meantime it would probably be much wiser to

leave religious teaching to special Sunday classes like the Sunday Schools in Christian countries.

In the afternoon session Mr. Sundra Rama Iyer, of Rajmundry, was in the chair, and Mr. Satthianadhan read the interesting paper on "*Compulsory Education*" which we print in another column. In this it was suggested that the presidency might be mapped out into different school districts under the control of school boards, but as seventy-two lakhs of rupees would be needed for the experiment there is no immediate likelihood of this scheme being carried out. In the discussion which followed Mr. Barrow dwelt on the difficulty of getting the ordinary tax-payer to see the good of a school rate, and suggested that it would be well to watch how the scheme succeeded in Baroda, where it was at present being tried, and then to make the experiment in some few municipalities. Mr. Hoare alluded to the caste difficulty and believed that the proposed scheme was premature. Mr. N. R. Ramasawmy Iyer pleaded for the education of girls. The Chairman emphasised the fact that there were thousands of villages which had no primary schools at all, and suggested that this defect should first be met before the introduction of a scheme of compulsory education.

After Mr. Satthianadhan's reply resolutions were passed to the following effect :—

(1). Thanking the Director of Public Instruction for his attention to the resolutions of the former Conference, and directing copies of those of the present one to be sent to him.

(2). Expressing the belief that as long as the salary of Primary School Teachers remains as low as it now, is it is impossible that Primary education can be at all satisfactory.

(3). Requesting the Director to urge all Municipalities and Local Boards to follow the example of the Godaveri and Krishna Districts in making provision for pensioning teachers employed by them.

(4). Asking the Madras Teachers' Guild to continue its inquiries about the establishment of a provident fund.

(5). Calling attention to the danger of the teaching of English becoming too mechanical by too great attention being paid to grammar rather than idiom.

(6). Asking the Madras Teachers' Guild to enquire as to the

desirability of reintroducing an English text into the Matriculation course.

(7). Expressing the belief that "the ultimate introduction of a system of universal education must be the aim of all who have the public welfare at heart," and asking Government to consider whether in the meantime more Provincial and Local funds could not be devoted to the spread of Elementary Education.

Another resolution, in favour of conducting the Lower Secondary Examination conducted in the vernaculars with English as an optional, was not put to the meeting as there appeared to be a smal l minority opposed to it.

After tea, a large group photograph was taken, and an hour later a very successful social gathering concluded the proceedings.

THE TEACHING OF ENGLISH IN HIGH SCHOOLS.

By W. E. Hoare, M.A., Principal Doveton College.

I am compelled by what Jowett once termed the exigencies of chronology to deal with my subject as briefly and simply as possible. Let us consider (1) the teacher and his methods; (2) the pupil; (3) the books and apparatus at the command of both.

1. The teacher—his methods. It is a sad and well known fact to all teachers of High School forms that their pupils, though well up in accidence, break down when their knowledge has to be applied to the task of composition. As regards certain common mistakes as wrong one of the plural, etc., for those in the sequence of tenses, students seem incorrigible. Their teacher has to set himself, and often in vain, to remedy, what are in effect errors on the part of the teachers in the lower classes. In primary classes we employ teachers whose knowledge of English is imperfect and whose pronunciation is faulty, and wonder that boys even in higher classes are found as backward as they are. The remedy is simple: English should be taught throughout the school by the best teacher available. This the Educational Rules distinctly en-

courage us to do. In the Appendix containing Hints and Managements we are told that while it is desirable that in lower secondary and primary schools every teacher should as far as possible have charge of the same class in all subjects, it is particularly recommended that the regular English lessons throughout the school be entrusted to none but teachers who are competent to teach the subject. By a competent teacher I do not understand a teacher who can only drill his class in grammar; I understand the term to denote a teacher whose pronunciation is clear and correct, who writes and speaks English correctly. Explanation plays a very important part in class work, and there are many teachers with excellent knowledge of grammar, who yet break down badly in this kind of extempore composition. I fear that translation is not treated in our classes with the importance it deserves. In the lowest classes it necessarily occupies an important place, but when a boy reaches the first or second form there is a tendency for the teacher to suppose that his pupil knows enough English to understand all that he says, he therefore explains in English, omitting to give the vernacular equivalent, with the result that the denser pupils, those who most need the explanation, fail to understand it. The work of translation should be oral and written out. Teachers, I fear, confine translation to a written exercise, and very slipshod irregular English is often accepted as a correct equivalent of a vernacular passage given for translation. Comparatively few teachers get boys to translate *viva voce*. Beginning with short sentences, qualifying references and clauses might gradually be introduced till considerable facility in translation was acquired.

Our teachers themselves are far too fond of ploughing through a well-worn grammar instead of being content to teach grammar, at least in parts, through the reading book. Every sentence will illustrate some rule at any rate of accidence, syntax, word-formation. Idioms will constantly occur which the pupil should not merely note, but be made to use in a translation from the vernacular. I have spent forty-five minutes over less than half a dozen lines in a reader, and thought the time well spent. Some teachers cover two or three pages in the same time. They appear to think that the reader is to be used to convey information and not to teach English. The pupils with their mind fixed on the English language forge ahead, pay little attention to a lesson of

this kind and clamour for the study of somebody's manual and in too many cases, from all I can gather, the reading book is rarely used and the manual takes its place. A boy can learn lists of idioms off from the manual but he will not use them unless he sees them used in his reader. His attention must be drawn to them and he must be encouraged to frame sentences in imitation.

Our teachers themselves require to read more and to mark and make use of what they come across. Those who have read the essays of the late S. V. Thomas, a brilliant scholar cut off in his early prime, are aware of their extraordinary merits. In them absolute correctness is joined to elegance and force. I know the secret of this mastery over the English language. I possess Mr. Thomas's copy of Macaulay. Every idiom, every striking phrase, every simile is underlined, and each volume bears evidence of deep study. And yet Mr. Thomas was not one who dragged in idioms neck and crop; they naturally fell into their places. His was rather a breathing of the spirit of the masters of English prose rather than a dull imitation of their works.

2. The pupil. It is difficult to overpraise the eagerness with which the majority if Indian students pursue their studies. No students that I have heard of in England are so quick to appreciate the teacher's efforts on their behalf. If their teacher is good and knows his work they are wonderfully docile and attentive. It is a pity that their energies are so frequently misdirected; that they should, for instance, if candidates for a public examination, be so eager to move about for any indication of the nature of the paper they will have to answer. The time spent over will-o'-the-wisps of this kind might be more profitably spent. It is a pity also that they are so often willing to remain content with committing to memory what they do not intelligently understand. Under right guidance from their early days they make good students. It is refreshing after the disappointments and anxieties that all true teachers know to come across the genuine earnestness in study that is common in this country. But Indian students, as a whole, need to take a wider view of education; they need to read more, with a pencil and note book at hand, to worry less about allusions, and relegate, at least occasionally, the beloved Manual or Hand-Book or Compendium to a backself. He needs to feel that a student

might as well expect to become a great painter of the human form by the mere study of detached bones, muscles and organs as for a student to become a master of English by the cramming of syntax, words and idioms.

3. Apparatus and facilities for learning English. I have already incidently referred to means too much neglected for getting a boy to write and speak English as apart from the separate words or ideas of the language.

The Indian student cannot complain of the lack of books to help him. These exist in bewildering profusion. Many of these are written by scholars of acknowledged eminence specially for him. Indeed it is not too much to say that India has made handsome contributions to the list of books designed to teach English, and that English is more thoroughly taught in India than in England.

Much diversity of opinion exists as to the prescribing of particular text-books in English for the Matriculation. Some urge that when books are prescribed, there is at least a guarantee that these books, if no others, have been studied, whereas now there is reason to fear that except at the time when the Inspector's visit is due, the Reader is in some schools utterly neglected in favour of the grammar. The advocates of the present system point out with considerable force that the value of a prescribed text was reduced to *nil* by the yearly publication of a literal pharaphrase of the poetry, which was eagerly purchased and committed to memory. The present system is undoubtedly the best if we can get teachers to take the right view of the reading lesson, as a study of English and not a depository of historical, scientific, or other information. Essays play an important part in the work of the class. But to make the correction of them useful to the pupil, his essay should be gone over carefully with him. Typical mistakes may afterward be made the subject of a class lecture. I suggest as a counsel of perfection that I myself have never attained, (1) that a very bad essay should be returned to the pupil with the locality of an error, but not the error itself indicated. The student should then after revising his essay bring it up for final correction; (2) that the teachers should keep a note-book and sort out common errors, so that on the occurrence of one of them he may have a number of examples ready at hand.

Conversation in class ought to be made use of. If students will not talk to the teacher, they will often talk to each other. Composition may sometimes take the form of a story dictated in successive portions by the pupils, the skeleton being supplied by the teacher.

The great advantage of Students' Literary Societies lies in the opportunities presented for practice in English composition. But, in my opinion, putting aside other aspects of these societies and considering them merely as educational instruments, their value from this point of view is very low. This arises from the way in which they are usually worked. The essay read is usually read badly and contains even more mistakes than it would have contained if brought up in class. The speeches contributed to a debate abound in grammatical errors; sentences are begun and never finished, and the delivery is usually very halting. In my opinion college debating societies should be under the immediate care of the English professor. He should get the students to submit their essays to him beforehand and would before long impart some nature of what was meant by force and style. Of course speeches made in a debate are less easy to deal with. But unless supervised the habit of speechifying becomes simply a habit of repeating the same blunders till they become ingrained in the student's speech. How else are we to account for the simplest mistakes that even graduates commit?

But even with regard to speeches it is possible to get students to express their views on a previously announced subject. They would do well to write these down and submit them to their teacher. This kind of coaching would not be required for ever; the senior pupils require less and less, and junior pupils would be coming on to take their place.

In these days of cheap books there is no financial hindrance to the establishment of a reading circle. A number of students would combine to form a class. A cheap standard work would be selected and would be read rapidly, the object of the class not being historical or moral gain but amusement and familiarity with the English tongue. Such a class might well occupy the last period of a Friday afternoon.

In what I have been saying about the reading class I have been chiefly thinking of *prose*. I fear English poetry is rarely

read as a pure amusement or intellectual treat. Even few graduates, I fear, really relish English poetry and read it as a refreshment of the mind. But I see no reason why an enthusiastic teacher should not get a few pupils at any rate to like poetry. It would be better at the outset that the enthusiastic teacher should not be a devoted admirer of Browning.

I should like, in conclusion, to refer to one point connected with class books. Our local publishers and authors are enterprising and it is right that they should be, but while much that is really good appears, rubbish is sometimes put on the market. The Indian student has not yet learnt to distinguish between the bad and the good. Hence one frequently finds a most mischievous compendium in the hands of a student. Furthermore, and this is the point I wish to urge on the teachers assembled before me, all books containing exercises are almost immediately rendered worthless by the publication of a key. It is well known also that the addition of notes to a Reader renders it, in the eyes of many distinguished educationists among us, comparatively useless. Hence Readers are often without any notes except those of a historical or scientific character. But as soon as the Reader comes into extensive use, notes of a familiar and undesirable kind appear. I may quote as examples of books thus spoilt by keys and notes Walton's Syntheses and Macmillan's Readers. I think our graduates and writers might refrain from an act that damages another man's property, and what is far more important makes true education to suffer. I believe the law in its present state offers no remedy, and it is a point for consideration whether the Guild should not express its conviction that in the interests of education, the law of copyright should be extended so as to prevent an admittedly useful book being spoilt by the publication of keys and notes against the will of the author.

Walton, however, is suffering a just Nemesis. He was one of those who published every year a literal paraphrase of the Matriculation English Text in the old days before 1892, thus making intelligent study of the text almost impossible.

COMPULSORY EDUCATION.*

The question of compulsory education, which I wish to bring to your consideration this afternoon, is directly connected with the wider question of the relation of the State to education. Let me, therefore, say a few words first on this latter subject. That it is the right and duty of the State to provide means of education for the common people is a proposition that is acknowledged as a truism in every civilized country. It is a proposition that is implied in every definition now given of the functions of Government. Opinions may differ, and have differed, as to the method that should be adopted by the State to provide the necessary means of education for the common people, but as to the absolute necessity of the State adopting some measures to promote education among the people there is not the slightest doubt at present. Even taking the narrowest conception of the functions of Government, no one dare say that it has nothing to do with the education of the people. A distinction is sometimes drawn between that which relates to the *well-being* of society and that which relates to its *being* or mere existence, and it is said that Government should concern itself only with matters that relate to the *being* of society, its mere existence. But then the education of the masses deeply concerns the common-wealth—not merely the prosperous existence of the common-wealth, but its very existence. Adam Smith, who always protested vehemently against *interfering* governments, has laid it down as an axiom that the education of the common people is the most effectual means of securing our persons and our property, and as such it is the duty of the State to provide for the education of the poor. We, in India, who know the serious risks to life and property that result from the religious riots which no part of India is free from; we who realize this year more than we have ever done before the results of the frightful plague and pestilence in our midst—a consequence, to a great extent, of the neglect of the most simple and obvious requirements of healthy living; we who know the misery and the poverty

* A paper read before the Madras Educational Conference December 23rd, 1897, by Mr. S. Satthianadhan, M.A., LL.M., (Cantab), Professor of Mental and Moral Science, Presidency College, Madras.

that reign supreme among the masses, must admit that much as these evils are due to other causes, the ignorance and intellectual debasement of the neglected portion of our population in towns and rural districts, both adult and juvenile, have had no small share in their production. Education like trade, it may be said, must be left to private enterprise, but the analogy does not hold good. It was David Hume who laid down the sound principle that callings which promote pleasure and advantage to individuals, such as arts and trades, may safely be left to be taken care of by individuals, but those callings which are absolutely necessary to society but which do not minister to the peculiar profit or pleasure of any individual should not be left to mere competition, but should come under the fostering care of Government.

There is no country where private enterprise in education has produced such remarkable results as in England, and in no other European country has free private competition been utilized to solve the problem of education with such marked success as in England. Every thing that the State could do by means of liberal grants to stimulate voluntary efforts was done, and yet at the end it was found that notwithstanding all the efforts of voluntary agencies, seventy out of every hundred children were growing up in absolute neglect, so far as the State was concerned. It was only then that the people of England came to believe that no complete system could be established without the necessary and uniform intervention of the State. It is true that the idea of compulsory education was late in taking root in England. The English were aware that in Prussia the system had existed practically since the Reformation and had produced excellent results, but English pride would not admit that that should be a reason for introducing compulsion in their own country. Public opinion, however, on the question gradually ripened and the result was the Act of 1870, introduced by Mr. Forster, which has done more for education in England than all the efforts put forth previously by the Education Department to promote education.

The question naturally suggests itself: why was England so late in adopting the system of compulsory education when she was aware that that system had produced excellent results in other European countres? The reason is not far to seek. The principle

of *laissez faire* is most strongly rooted in the English nation, and hence the idea that the State should keep its hands off the work of education. But there was yet another reason. In England as in several other western countries, education was at first entirely in the hands of religious bodies. These religious bodies were extremely jealous of the interference of the State and claimed for the Church a monopoly of educational activity independent of the State. Though the idea of a national system of secular education under the direct control of the State was mooted as early as in 1850, it took 20 years before any definite steps were taken to give effect to it, and this provoking delay was mostly due to the difficulties that the Government had in dealing with the religious question. Even to this day the battle-ground of education relates to the nature of religious instruction that ought to be introduced in Board Schools. There were, therefore, special circumstances at work accounting for the late introduction of compulsory education in England, and so long as these circumstances are not found in India, this long delay in introducing a national system of compulsory education in England should not be brought forward as an excuse for a similar delay in India. The religious aspect of the problem is entirely absent in this country, and so long as the principle of religious neutrality is strictly observed by Government those difficulties relating to religious instruction which postponed the introduction of a system of compulsory education in England will not have to be met with in our country.

But why not allow the existing agencies, public and private, to carry on the work of education without resorting to compulsion—it may be asked? My answer is that at the slow rate primary education is progressing, it is doubtful whether India will ever come up to the educational level reached by European countries. When I speak of the need of compulsory education I refer of course to the primary education of the masses in the vernaculars. Let me recall to your mind two important recommendations on primary education passed by the Education Commission. They run as follows:—"That while every branch of education can justly claim the fostering care of the State, it is desirable, in the present circumstances of the country, to declare the elementry education of the masses, its provisison, extension, and improvement to be that part of

the educational system to which the strenuous efforts of the State should now be directed in a still larger measure than heretofore."

And further: "That an attempt be made to secure the fullest possible provision for, and extension of, primary education by legislation, suited to the circumstances of each province."

The second recommendation viz., that the fullest possible provision for primary education should be made by legislation has not been given effect to at all, so far as this Presidency is concerned; for the Local Funds Act IV of 1871, and the Towns Improvement Act III of 1871, which undoubtedly gave a great stimulus to elementary education, were introduced 11 years before the Education Commission, and since the Education Commission issued its report no new legislative steps have been taken to extend and improve primary education, and yet the recommendation of the Commission, I have just referred to, fully contempletes such a course. The Department of Public Instruction with the limited funds at its disposal has been doing its best to stimulate private enterprise, but an impartial survey of the state of primary education cannot but lead to the conclusion that nothing but a thorough reconstruction of the whole educational system is what is needed at present to place primary education on a satisfactory footing in this Presidency. This is what the Honorable D. Duncan says in the last Public Instruction Report, after pointing out that only 24 per cent. of boys of school-going age are under instruction:—

"Government will observe that 76 per cent. of the boys of primary school age, that is, three boys out of every four are not at school, that only 37 per cent. of the net cost could be assigned to schools in 1895-96, and that 13,702 villages with 200 or more inhabitants and 20,215 villages or village groups with less than 200 inhabitants are yet unprovided with any means of educating their children. The above figures indicate the extent of the work to be done before three-fourths or even one-half of the boys of school age are brought under the civilizing influence of education. The charge for the lower primary education of boys, except in Municipalities and the Agency Tracts, is a liability on Local Funds. Unless, therefore, Local Boards are able to assign an annually increasing allotment for education, it is futile to expect any large extension of the sphere of primary education. Missionary and philanthropic societies and public spirited citizens cannot be expected to open

new schools when, owing to diminished grants, they find a yearly increasing difficulty in supporting the schools already opened; and parents, even if they have the means, cannot be depended upon to pay fees sufficiently high to cover the cost of a school. Far from being able to assign annually increasing sums for education, several local boards have, as a matter of fact, been led to reduce the allotment for education for 1896-97, with a view to give effect to the express orders of Government to assign 50 per cent. of the land-cess collections to communications. The allotment for results grants in the local budgets for 1896-97 is, in consequence, Rs. 2,25,060 as against Rs. 2,31,750 in the budget for 1895-96; and I apprehend that the boards will make further reductions under this head in the ensuing year's budget in order to give full effect to the orders of Government. If the provision for primary education is thus to be left to the tender mercies of local boards without any definite understanding, I foresee that its progress will be checked and impeded. How different is the spectacle presented by other civilised countries in this respect! In Great Britain, sufficient school accommodation has by law to be provided in every district for all the resident children between the ages of 5 and 14, and the minimum age for exemption from school attendance is fixed at 11; in France, primary instruction was made obligatory in 1882 for children from 6 to 13 years of age; education is general and compulsory throughout Germany, and the school age is fixed from 6 to 14; in Belgium, each commune is required by law to have at least one primary school, and Government pays one-sixth of the charge; in Denmark, elementary education is compulsory, and the school age is from 7 to 14 years; in Greece, all children between the ages of 5 and 12 years are required to attend school; in Switzerland, elementary education was made compulsory in 1874, the school age varying in the different cantons; in Japan, an Asiatic empire of very recent growth, elementary education is compulsory for all children of school age (6-14)."

The figures of Public Instruction show the most unequal distribution of educational facilities not only as regards districts but as regards communities as well. Whilst districts like Tinnevelly, Chingleput, Tanjore have about 25 per cent. of boys of school-going age in schools, districts like Madura, South Arcot and Coimbatore have not even 20 per cent. and an important district like Vizaga-

patar has only 11 per cent; of boys of school-going age under instruction. When we take into consideration classes of community the variations are even more discouraging. Not even 8 per cent. of boys of school-going age of the Panchama class are under instruction. I have omitted throughout figures for girls which are even more discouraging. What is to be the remedy for this most unsatisfactory state of things? Why not try the experiment which has been tried and found successful in England and in other European countries,—that is introduce slowly a system of compulsory education, not to supersede private efforts but to supplement them. To entrust primary education to the casual operation of District Boards and Municipalities and voluntary agencies would be most disastrous to the country.

A simple scheme such as the following may be given a trial in this Presidency. Let the province be divided into school districts adopting the boundaries of Municipalities for towns and of taluks or districts for the Mofussil; and let there be a School Board formed in connection with each School District. In England the question of securing representative local authorities to undertake the work of School Boards gave considerable trouble to those who had the carrying out of Mr. Forster's Act. In our country we shall have no such difficulties to contend with, for we have a ready-made machinery of self-government already at work in our District and Taluk Boards and Municipalities. Even now these Boards have specially constituted sub-committees to look after education and these sub-committees with, of course, additional powers may very well be constituted into School Boards. The one main function of the School Board should be to regulate the supply and management of primary schools in each school district. There should be a separate school fund at the disposal of each School Board, consisting of (1) Fees; (2) Assignment from Municipal or Local Funds; (3) Assignment from Provincial Funds; (4) any other funds that may be entrusted to the School Board for the promotion of education and (5) the sums realized from a compulsory local rate in order to meet deficiencies. That the idea of a compulsory local rate is not altogether utopian will be seen from the fact that the Director of Public Instruction actually suggested it to Government as one of the remedies for the unsatisfactory state of primary education; for

Dr. Duncan in his last report after quoting statistics to show the extremely unsatisfactory condition of primary education in this Presidency, says :—" One of two courses occurs to me as of practical moment *viz.* either that a special allotment from Provincial Funds for elementary education should be made to supplement the Local Board allotments, or that a special educational cess of some kind should be imposed, local unions being organised for the purpose." Compulsory education need not necessarily mean free education for all, for the rich and middle classes should be made to pay for their education, but the School Boards should be empowered to remit the fees of children of poor and backward classes. Where a School Board exists it should be given the power of compelling attendance. Each board should frame its own bye-laws for the approval of the Department taking into consideration the peculiar circumstances of the district; and these bye-laws should require attendance between the ages of 5 and 12 for all children who have not passed a qualifying standard. Of course each School Board should be entrusted with powers of exemption regarding attendance in exceptional cases.

Let us see what objections are likely to be raised to such a simple scheme of compulsory education. In England, the most serious difficulty raised to the carrying out of Mr. Forster's Educational Bill of 1871 related to the religious question, and this difficulty is entirely absent in India; what then are likely to be the other objections?

Of course we shall hear a great deal about compulsory education interfering with parental rights. But if the whole question is rightly viewed it will be found that compulsory education instead of interfering with parental rights is just the measure needed to bring home to parents their duties toward their children and towards their country. It may be true that the parents have a right in a certain sense over their children, but no conception of parental right should be made an excuse for parental neglect, for after all a right is correlative to an obligation.

A compulsory system of education, it may be said, will cause great hardships to parents who depend greatly upon the labours of their children. I admit that in a poor country like India, which is mainly agricultural, and where the earning power is low it is a

serious thing to deprive parents of the wages their children are likely to get by manual labour, but then as a rule, even in India, children are not able to earn much till they reach the age of twelve or thirteen, and surely the earning power of children in any capacity is likely to increase and not diminish by their receiving a sound elementary education. Then again, by a judicious introduction of half time attendance and by the establishment of night schools, it may be possible to give elementary education to the children without interfering with their manual labour. The night school system has been tried in this Presidency and has not proved a failure. We have in this Presidency 2,713 night schools with 20,868 pupils, but the majority of these are private aided and unaided institutions. There are only 95 night schools maintained by Boards. In agricultural districts especially these schools are likely to do a great deal to promote primary education

A compulsory system, it may be said, will cripple voluntary efforts. This is not true at all. In countries where the compulsory system prevails voluntary agencies are most efficient and strong. When Mr. Forster introduced his Bill he said, "our object is to complete the voluntary system and to fill up the gaps." Before a School Board formed schools of its own it gave every facility to voluntary agencies to open their own schools. If a district was properly supplied with schools it was left alone, the Board confining itself merely to aid these agencies and enforcing attendance of school-going children. Just as secondary education has been gradually handed over in our Presidency to voluntary agencies, so also primary education can be handed over, but as I have said before it would be disastrous to leave primary education entirely to voluntary agencies in this country. Stimulate voluntary agencies by all means but at this juncture the State should step in and cover the country over with a net work of schools.

India is not ripe, it may be said, for a system of compulsory education. When even in England it took such a long time to introduce compulsory education, how can India be fit for the introduction of such a system so very soon? The question whether India is ripe for a system of compulsory education is a frivolous one altogether. The real question is whether a system of compulsory education is *necessary* for India, and as regards this there can be no two opinions.

One might as well argue that in England the railways and telegraphs were introduced after so many centuries, and India was not ripe for the introduction of these inventions.

What is good for England is not good for India, or to put it in other words, we are not justified in transplanting on oriental soil a system that is peculiarly western. This is the line of argument that is often resorted to in these days. This objection also will not stand the test of careful scrutiny. To speak of carrying on education on eastern and western lines is as absurd as speaking of sanitation or of vaccination on eastern and western lines. If the system of compulsory education is regarded as western simply because western nations have adopted it first, then the system of university education must also, on the same ground, be regarded as western, and yet we have not hesitated in the least to adopt the latter as the best means of encouraging higher education; why should there be any objection then to the compulsory system? One of the great advantages we derive by our connection with Great Britain is to benefit by institutions which are the outcome of years, nay, probably, centuries of experiment and trial, in the old country. We secure rights and privileges to possess which we have made no efforts whatever. Why should not we then take advantage of the educational machinery which though only lately introduced into England has been found to work there most satisfactorily?

The financial question, of course, will be the most difficult question that will have to be met with in connection with this scheme. The primary education of boys at present costs nearly Rs. 18,00,000. You will be surprised to learn that the cost of educating each boy in a primary school amounts to only Rs. 3-4 per annum. I doubt if there is any other country in the world where it is posible to get education at so low a rate. Even at this low rate, to provide education for all the boys of school-going age it would cost Rs. 90,00,000; where is the extra Rs. 72,00,000 to come from? This sum appears very large but you must remember that it represents the extra expenditure that will have to be met for primary education from five different sources, that is, Provincial Funds, Local Funds, Municipal Funds, fees and other sources. If the whole amount is distributed among these sources according to the proportion in which present expenditure on primary educa-

tion is met from these sources the distribution will be as follows:—From Provincial Funds there will have to be met Rs. 6,00,000 extra, from Local Funds Rs. 24,00,000 from Municipal Funds Rs. 5,00,000. These amounts are not so very great after all considering the enormous good the country will reap by the raising of the intellectual level of the masses. Surely no one who admits that it is our duty to train the minds of the rising generation can think a sum of 35 lakhs—distributed mind among three different sources—too large a sum for that purpose. Why, the plague in Bombay cost that Government 2½ lakhs, and the famine expenses in this Presidency alone cost Government 1 crore or 100 lakhs. If we look at the matter from the lowest point of view, if we consider human beings as producers of wealth, the difference between an intelligent and stupid population estimated in rupees, annas and pies exceeds a hundredfold the proposed outlay. For every one rupee we save in education, we shall probably have to spend five in prisons and prosecutions, in combating plague and pestilence, the outcome of neglect of the simplest sanitary principles.

Gentlemen, I have done. I hope the scheme of a compulsory system because it is novel will not be considered as visionary. I admit that there are serious difficulties in the introduction of such a scheme but they are not insuperable so long as the imperative necessity of providing means of education for the common people is admitted. Even if nothing practical comes out of this paper, if it succeeds in bringing home to this Conference the utterly unsatisfactory condition of primary education, I shall be satisfied.

EDUCATION IN BENGAL DURING 1896-97.

Dr. C. R. Martin, Director of Public Instruction, Bengal, has recently published the Annual Report on Education in that Province. It is a document abounding in interest and full of information.

We learn from the Report that in Bengal there are 67,847 educational institutions of all sorts with 1,674,775 pupils under instruc-

tion. In the last quinquennium the former has increased by ·08 *per cent.* and the latter by 9·3 *per cent.* Compared, however, with 1895-96 schools have reduced in number by 3,006, and pupils by 2,227. This is attributed to the Famine. With regard to the ratio of pupils to the population it is observed that the total population of Bengal, according to the Census of 1891 is 73,043,697, of whom 36,412,749 are males and 36,630,948 are females. This gives at the usual rate of 15 *per cent.* 5,461,912 male children and 5,494,642 female children of school-going age. Of the pupils on the educational returns 1,561,008 are boys, and 113,767 are girls. Thus of all boys of school-going age 28·5 *per cent.* and of all girls of school-going age 2·0 *per cent.* were at school in 1896-97. The percentages of 1895-96 were 28·6 and 2·0, respectively, and those of 1891-92 were 26·3 and 1·8.

During the year under consideration the Education Department was re-organised, and is now divided broadly into (*a*) the Superior Service, and (*b*) the Subordinate Service. The former consists of two branches—one including all posts to be filled by persons appointed in England, called the "Indian Educational Service"; and the other, including all posts to be filled by recruitment in India, which is known as "The Provincial Educational Service."

The relations between the District Boards and the Education Department have, on the whole, been harmonious, and the Lieutenant-Governor observes that with the accumulated experience of years, and with the Magistrate as Chairman and the Deputy Inspector of Schools as an *ex-officio* member, the District Boards are now becoming efficient factors in the control of middle and primary schools. In some districts local boards have been entrusted with the management of primary education, but the Director reports that their administration has generally not been attended with success. So Government Colleges have been transferred to private management. As regards the extension of Collegiate Education, there is no need for further efforts on the part of Government, private enterprise having, in this respect, done all that the circumstances require. The only division in which there is no College at present is Chota Nagpore, and if the Zilla Schools in that Division continue to gain increased success at the Entrance

examination, as they have been doing for some years past, the Lieutenant.-Governor would be glad to see a local movement for starting a second-grade College in it.

Natives of India who have graduated either in India or in England are being extensively employed as higher Inspecting Officers, or as Professors of Colleges, or Head Masters of Training Schools. In the Indian Educational Service, there are three natives of Bengal, and in the Provincial Service there are 96, of whom 63 are Professors. It has been decided that with the exception of the Presidency, Dacca, and Patna, Colleges, all the Arts Colleges will be manned as far as possible by Officers of the Provincial Service.

The number of English Secondary Schools, high and middle, increased during the quinquennium ending with 1896-97, from 1,195 to 1,395, or by 11·7 *per cent.*, and the number of pupils attending them, from 135,934 to 153,298, or by 12·8 *per cent.* The number of high schools shows an advance from 368 to 393, and their attendance from 77,433 to 83,640; the number of middle schools an increase from 827 to 942, and their attendance from 58,501 to 69,658. The average strength of a school of this class was 115 at the end, against 114 at the begining of the quinquennium.

A number of unaided schools has been started in large towns, especially in Calcutta, and compete with the Government Secondary Schools, the attendance in which shows a slight decrease. It may be hoped that this movement will gain in strength so that Government may be able to gradually retire from the maintenance of secondary schools.

The number of students who passed the different University Examinations in Arts from the Colleges in Bengal during the last five years was as follows:—First Arts 4,850, Bachelor of Arts 1,859, Master of Arts 329 of the M. A's, 192 came from the Government Colleges, 162, from the Presidency College alone; 43 from the unaided Missionary Colleges, 13 from two unaided Colleges, and 81 were private students. English continues to be the most popular subject for this degree, but 81 persons took the M. A., degree in Science; this is a new and hopeful sign.

Dr. Martin points out that the statistical returns at present collected do not give an exact idea of the state of education

among all the backward races of the Province. Pupils are classified by religion only, and thus all Hindus are grouped together and all Muhammedans, though there are races or tribes among them who are as backward educationally as the forest tribes, whose religion is described as "Animistic." The forest tribes are chiefly to be found in Chota Nagpur and Bhagulpore Divisions, the Orissa Tributary Mahals, the South Lushai Hills and the hilly parts of the Birbhum, Bankura and Mymensingh districts. In all these places, special efforts have been made to encourage the spread of primary education, and the Department has been materially assisted by extensive Missionary organisations. A special Deputy Inspector was appointed during the period under review for the inspection of Sonthal schools, and the inspecting pandits, who supervise the primary schools intended for aboriginal tribes, as far as possible recruited among aborigines. There are three high schools—one maintained by Government, one aided, and one unaided,—which are maintained chiefly for aborigial pupils; and scholarships have been set apart in some of the districts for their benefit. But some forest tribes still have a strong dislike for education; the Bhuinya tribes of the Keonghar State recently burnt the school-houses, and they are said to regard police and education as equal forms of oppression.

Six pupils of aboriginal descent passed the last Entrance examination, against 2 in 1891-92; in the primary examinations also there has been progress, 52 and 627, respectively, having passed the last upper and lower examinations, against 51 and 313 in 1892, but the results of the Middle Scholarship examinations show a falling-off from 33 to 13 passes, chiefly on account of the German Mission School at Ranchi from the Middle English to the High English status.

In certain places rural post offices have been put in charge of Schoolmasters, who have received extra remuneration. The system is reported on as having worked well.

In 1896-97, arrangements were, for the first time, made for the training of English teachers for secondary schools. There had previously been provision for the training of vernacular teachers only. English classes were opened in conection with the training schools at Calcutta, Hooghly, Dacca, Patna and Cuttack. Three

grades of teachers' certificates in English has been arranged for, but classes for the first two standards only has as yet been opened. The first examination for English certificates for Masters was held in April 1897. The results were disappointing. Sixty-two candidates presented themselves for examination : but only 6 passed. No training schools for Mistresses are maintained by Government, but there are some schools of this class kept up by the different Missionary Societies, and some aid is given them from the Provincial Revenues. The absence of an adequate supply of female teachers, and the social objection to the employment of women on remunerative work, seem, the Director states, to be more potent obstacles to the advancement of female education than the system of early marriages or the seclusion of females from public gaze, which would not generally interfere with the education of a girl up to the primary standard.

The Report deals with "Technical Education" under the designations Law Classes, Medical Schools, Drawing, The Sibpur Engineering College, Schools of Survey, the Government School of Art, and the Calcutta Deaf and Dumb School. The Calcutta Medical College is the only institution in the Presidency. The rule rendering the B. A. degree a necessary qualification for admission to the degree of Doctor in Medicine has been rescinded by the University. There were in the year under review 468 Medical Students, both male and female. In the Sibpur Engineering College mining, engineering, electric engineering, and photography have been added. A Veterinary School has been established by Government at Belgatchia, near Calcutta. The demand for admission to the Sibpur College has been so great that it has been found necessary from time to time to raise the general qualifications for admission. To the Engineering Department no pupil is now admitted who has not passed the F. A. examinination, and to the Apprentice Department no one is admitted who has not passed the Entrance examination, or the Standard VII examination of the European Code.

In 1896-97 there were 7,818 pupils belonging to the Eurasian and domiciled European community. Of these 5 *per mille* belonged to the Collegiate stage, 35 to the higher stage, 224 to the middle stage, 240 to the upper primary stage and 496 to the lower primary stage. The corresponding figures for all classes are 4, 18, 30, 53

and 895, respectively, in, Bengal. Hence European and Eurasian pupils, as a body, are in higher stages of instruction than the rest of the community.

Muhammedan education has improved in some respects, and 477,019 Muhammedans are under instruction. The proportion of this class of pupils to the whole Muhammedan population of a school-going age is only 13-6 *per cent.* They have, however, passed the various University examinations in larger numbers. No Muhammedan passed any of the Engineering examinations held in 1896-97.

Besides the ordinary schools there are Madrasahs in which Arabic is taught in all its departments, and also Sanskrit Schools. Physical education has gained much popularity, and such games as cricket and foot-ball are played with enthusiasm. In Marcus Square, Calcutta, the University Institue has laid out an excellent play-ground for native students.

Boarding-Houses have been opened out in connection with many Missionary and Government schools and colleges. This is a department of educational work which offers considerable scope for extended application.

MADRAS TEACHERS' GUILD.

At the Educational Conference Mr. E. Seymour Hale of the Publishing House, Bombay, set out on view a large number of books published by the firms he represents. Most of these books he has presented to the Madras Teachers' Guild. Included in this valuable addition to its Library are included publications by Messrs. George Bell and Sons, Blackie and Sons, Blackwood and Sons, A. M. Holden, G. Philip and Sons; and the Cambridge University Press.

Teachers Wanted.

1. A Trained Christian, F.A.
2. A Christian B.A. Trained Physics.
3. A Trained Physics or Mathematics B.A.
4. Two Eurasian undergraduates (Protestant), capable of teaching English and Latin.

5. A first rate Mathematical Lecturer for a College in Ceylon.
6. A Certificated Matriculate (Canarese)

Places Wanted for

1. An experienced Christian graduate Headmaster, who is eligible for a third grant.
2. A Physics, B.A., L.T. (Tamil).
3. A History B.A. (Latin, Urdu), untrained Eurasian.
4. A trained Certificated F. A., Tamil.
5. An untrained F.A., Christian (Tamil).
6. An untrained F.A., with ordinary Certificate.
7. An untrained Physics, B.A. (Sanskrit).
8. A Matric with First Class Normal Certificate.
9. A Sanskrit Chemistry B.A. (Tamil), untrained.
10. An untrained Certificated B.A. Mathematics (Tamil).
11. A B.A. Philosophy graduate, Tamil, L.T., Theoretical.
12. A M.A. Science, untrained.

S. SATTHIANADHAN,
Registrar, Teachers' Guild,
Royapettah, Madras.

THE NATIONAL ASSOCIATION FOR THE PROMOTION OF TECHNICAL AND SECONDARY EDUCATION

The tenth annual meeting of the National of the Association for the Promotion of Technical and Secondary Education was held at 3 P.M. on Friday, the 17th Dec. 1897, in the Guildhall, Westminster, S. W. The chair was taken by the Right Hon. James Bryce, M.P., a Vice-President of the Association, and among those present were: by Sir H. E. Roscoe, F.R.S., General Secretary, Sir F. S. Powell, Bart., M.P., Mr. William Bousfield, Mr. Swire Smith, Mr. G. Herbert Morrel, M.P., Mr. G. J. Holyoake, Mr. R. E. Pannett, Mr. G. H. Baines, J.P., Dr. William Garnett, Mr. H. Macan, Miss Gertrude W. Nash, Mr. Francis Ford, Mr. H. E. C. Stapylton, Mr. J. Spencer Hill, Mr. J. C. Buckmaster.

The following letter from the Duke of Devonshire (President of the Association) was read by sir Henry Roscoe :

"Privy Council Office, December 14, 1897.

"My dear Sir Henry,—For the reason given last year it will, as you understand, be impossible for me to take the chair at the annual meeting of the Association, but I have much pleasure in again testifying to the valuable work it performs in supplying information and directing public effort into useful channels.

"I am, yours very truly,

"Signed DEVONSHIRE."

Letters regretting inability to attend were also received from the following among others : the Right Hon. Sir U. J. Kay-Shuttleworth, Bart., M.P., Right Hon. Sir B. Samuelson, Bart., Sir A. Rollit, M.P., Mr. H. Hobhouse, M.P., Mr. Woodall, M.P., Lord Thring, Sir Douglas Galton, Sir David Gamble, Bart., Mr. E. J. Halsey, Mr. C. E. Thornycroft, and Mr. Frank W. Young.

Mr. Bryce said that, this being the tenth anniversary of the foundation of the Association, it was natural to look back upon the work that had been accomplished, and on the contrast which might be observed between the position which the question of technical and secondary education occupied now and that which it occupied in 1887. Members of the Association might congratulate themselves on the progress that had been made—progress all the more remarkable because it had been very largely due to voluntary effort and to the progress of public opinion. The foundation of the Association coincided with the beginning of the rising of the tide of interest in the subject, and, taking the tide at the flow, it had been able to give very valuable direction to the efforts that had been made. When the position of this question to-day was compared with the apathy felt for it twelve or fourteen years ago, the change was very striking. Then great efforts had to be made to arouse public interest to show how much the country had suffered in commercial and industrial progress through the want of technical instruction. Now they had almost a wearisome iteration of the importance of it. The attention of the country had now been completely awakened, and public opinion was prepared to support any steps that might be taken to promote technical and secondary education. The report of the Association contained statements in

some detail of the various directions in which progress had taken place during the last few years, and particularly during the past year, and showed among other things that the application of the money granted for this purpose under the Act of 1890 was being used for extending and increasing technical instruction. Of the forty-nine County Councils in England, forty-one now applied the whole of the grant to education, and eight applied a part of it. Of the sixty-one County Borough Councils, fifty-three applied the whole and six a part of it. Out of a total of 807,000*l.* a year now available from this grant in England alone, no less a sum than 740,000*l.* was being spent on education; and the rate aid, although on a smaller scale and although a great many authorities had not yet levied rates, was increasing; 160 local authorities now imposed a rate and applied a sum of 39,000*l.* a year to the purposes of technical instruction. The number of technical schools recently established by local authorities and committees was now 168. There was an increasing sense throughout the community of the necessity of obtaining the cohesion of secondary with technical instruction, a point on which it was impossible to dwell too much. Technical instruction must never be dissociated from, but ought to be regarded as one of the advanced stages of, secondary education. This conviction was more and more sinking into the public mind, and more and more governing the action of those who had to administer the funds. Much was being done, too, to remove one of the greatest obstacles to progress—namely, the divergence of the different authorities and the want of connection between them, which caused great want of co-operation and prevented the money available being spent in the most economical way. Efforts had been made to bring these authorities into harmony, and to induce them to combine. The list of County Boroughs in which co-operation had been introduced included Bath, Birmingham, Bootle, Brighton, Burnley, Oldham, Plymouth, Rochdale, and Salford. But the most exemplary instance of this was afforded in the case of Manchester, where the School Board, as the authority which carried on elementary education; the City authorities, who were providing a splendid technical school at the cost of 200,000*l.*; and the authorities of Owens College, which represented the higher class of instruction, had all been brought into the same combination. Looking at the progress made in the different parts of the United Kingdom, it was surprising to

note that Wales, the smallest of these parts, was in the van. In all there was a sum of 92,000*l.* a year available for secondary and technical instruction in Wales, which was now being applied with the best results. England came next, the figures with reference to which he had already given; but he might mention that in London no less a sum than 150,000*l.* was devoted to technical instruction, out of a total of 185,000*l.* provided under the Act of 1890, representing an increase of 30,000*l.* since last year; and in this connection it would not be right to pass over without mention the good work of the Technical Education Board of the County Council. In Scotland, of the 33 County Councils, 28 applied all their grant, four applied part of it, and one applied no part at all, to this purpose; of the 204 Scotch burghs, about one-half devoted their share of the grant wholly or partially to the cause. Technical education was more needed in Ireland than in any other part of the United Kingdom. Mainly an agricultural country, its agriculture had remained very backward. Ireland has few industries, and the creation of industries would be a great boon to the Irish. But in Ireland nothing had been done. The hopes formed at the beginning of last Session that something would be done had proved fallacious, and he believed that the proposal of a Local Government Bill for next Session was considered to make it impossible to deal with the question of technical instruction in that country at present. It was not for them to express an opinion on the policy of the Government in that matter, but they would all join in sincere regret that nothing had been done for Ireland in the matter of technical instruction. With regard to agricultural education, he thought that things were improving. During the year ended with March last year, the expenditure, exclusive of capital outlay, upon agricultural education by 36 County Councils in England reached a total of over 58,000*l.* The money applied to agriculture by the County Councils had been spent rather wildly, but he thought it was year by year being spent better and yeilding better results. As to the prospect of legislation on secondary education they must not be too sanguine. There was a good deal of business contemplated by the Government for next Session. Some of it would be difficult and controversial, and it must occupy a great deal of time. If he could judge from the utterances of members of the Government and by the forecast made by observant students of political meteorology, it was doubtful whether

technical instruction would occupy a leading place in the programme. It would be very unfortunate if the controversies imported into elementary education should extend to secondary education, and its progress be thus retarded. Even if it should be impossible to pass a large comprehensive measure, there were certain changes, not in themselves controversial, which might be made with advantage. It would, for instance, be of considerable benefit if the Legislature declared that the money granted under the Act of 1890 was for the future to be consecrated to education, and if the distinction made in the Act between technical and secondary education were removed. A point which struck him in this connection was that secondary education was in many places taking too exclusively scientific a turn. Science was a comparatively new thing in our secondary schools, and now the tables were so much turned that science was positively jostling other subjects out of the field, and taking a terrible revenge for former neglect. This was not the result of any policy on the part of scientific men, who, he believed, were just as anxious as others could be that the balance should be equally held between the different kinds of studies. It was the result of our system. Another point was the creation of a central authority for the regulation of secondary and technical education, which had been felt to be one of the great educational needs. Such an authority could do much good in bringing about a *concordat* between the different local authorities and in stimulating their action as to the application of their funds. A further point in which legislation might help was in the creation of a teaching University for London a question which was referred to in the report. A movement with that object had now been going on for twelve years. There are many difficulties in the way, and an attempt had been made to overcome them by bringing in a Bill at the very end of Session, when there was no time to discuss it and when those who desired to stop legislation found it easy to do so. It was to be hoped that the error would in future be avoided, and that a Bill would be brought in at the beginning of next Session and passed through.

Sir Henry E. Roscoe, in presenting the tenth annual report, said no former report had exceeded it in importance or value. The Association undoubtedly did, in a quiet and unobtrusive manner, work of the extreme value to the community, and he wished to ask all present to use every effort to keep the Association going. There

was no voluntary association of the kind which deserved more assistance of those interested in technical and secondary education.

On the motion of Mr. Swire Smith, seconded by Mr. W. Bousfield, supported by Mr. H. Macan, the report was adopted.

The re-election of the officers and the Executive Committee was proposed by Dr. W. Garnett, and seconded by M. G. H. Baines. The proceedings terminated with a vote of thanks to the Chairman, which was proposed by Mr. R. E. Pannett, and seconded by Mr. G. H. Morrell, M.P.—*Education.*

THE LONDON POLYTECHNICS.

(1.) The Northampton Institute.

The interesting feature about this Institute is the fine building in which it is housed. Under the exceptionally favourable conditions of a roomy site, a thoroughly suitable structure has been raised with every provision for all the needs of the most elaborate technical instruction. Large and lofty rooms, broad corridors paved with vitreous mosaic, commodious general offices, standing along the three sides of a triangular piece of ground, which covers an acre and a quarter, so as to leave a considerable open courtyard within the building, give the effect of a noble educational institution. A very imposing idea of size is given by the rows of electric lights stretching away down the long stone corridors, as one stands at an angle of the triangle and looks along the whole length of one side.

The Northampton Institute is a Technical, Social and Recreative Institute for both sexes, available for the use of Members, Associates, and Students. The work is divided into two main sections, an Educational Section for Technological subjects, and a Social and Recreative Section. The Northampton Institute forms one branch of the City Polytechnic, the other branches being the Birkbeck Institution in Chancery Lane and the City of London College in Moorfields. At these later branches classes in Literary and Science and Art Subjects are already well provided. In a general way, therefore, such classes are not provided at the Northampton Institute. The educational aim is to provide classes in Technological and Trade Subjects. Attention will be paid first to the immediate requirements of Clerkenwell, the district in which

the the Institute stands, which is thronged with small workshops engaged in a great variety of trades, amongst which Watch and Clock Making stand out as the most prominent. Mechanical and Electrical Engineering Workshops (including Electro-plating and Electro-typing,), and Art Metal Workers in great variety also abound. As many of the workshops are small, the need of an all-round training for the workmen in the principles and practice of the different sections of their trade is more urgent than in large workshops where the work of production is sub-divided very minutely. The Educational Work of the Institute is divided into the following departments:—(i.) Mechanical Engineering and Metal Trades. (ii.) Artistic Crafts. (iii.) Applied Physics and Electrical Engineering. (iv.) Horology. (v.) Electro-Chemistry. (vi.) Domestic Economy and Women's Trades.

The modern constructive and artistic crafts employ in their processes so many methods derived from widely different sources, and use the principles developed in so many branches of natural science, that scarcely a single trade can be found which does not demand from an intelligent craftsman or journeyman, if he is to understand his daily work, a clear knowledge of fundamental principles drawn from more than one science. For the guidance of such a table has been compiled to enable the workmen engaged in the various trades to ascertain readily the Institute classes which they should attend, in addition to those more immediately dealing with their particular trades.

There is first the Mechanical Engineering and Metal Trades Department. The conditions under which the Engineering, Building, Cycle Making, and other Industries have been carried on in the past, are now undergoing a rapid change. The introduction of machinery, the demand for greater skill and dexterity, and for a higher degree of intelligence on the part of the artizan, are but a few of the causes. The altering conditions render it more and more imperative, as a condition of success, that all engaged in these fields of labour should bring to their work the advantages of a thorough training in both the principles and practice of their calling. Unfortunately, the opportunities for acquiring these in the commercial workshop or in building work are rapidly becoming less, largely owing to the decline of the apprenticeship system and the increasing tendency towards sub-division of labour. The aim and endeavour of the department is to provide such information and practice as may be unobtainable, or difficult to acquire, in the exercise of a man's ordinary trade.

Besides a commodious Lecture Room and Drawing Offices, this Department is provided with workshops for practical instruction; a

mechanical laboratory containing machines and apparatus for teaching pratically the fundamental laws underlying the constructive crafts ; a smithy ; a carpenter's and pattern maker's shop ; a plumber's shop ; a sheet metal worker's shop ; a brass finishing shop ; and an instrument maker's shop for electrical and other instrument makers. In connection with the non-metal section of the Building and Furniture Trades there are practical and drawing classes for carpenters and joiners, brick and stone cutters and cabinet makers. In the Engine Room there will be two steam engines, each indicating about 100 H.P. One of these is a high-speed engine directly coupled to a dynamo; the other will be a slow-speed engine, driving another dynamo. From these dynamos the lighting circuits of the Institute will be fed ; and they will also supply energy to the various shops in which it is intended to make an extensive use of electric motors. Both engines will be available for experimental work. In the Boiler Room there are already erected two boilers, each of 100 H.P. capacity. It is proposed to add other appliances.

In the Artistic Crafts Department it is the purpose of the Institute to consider the needs of the industries carried on in its own neighbourhood. The subjects undertaken will, therefore, be those which will be serviceable to Jewellers, Gold and Silversmiths, Watch and Clock Case Makers, Engravers, Chasers, Enamellers, Modellers, and Workers in Plaster ; Wood, Stone, and Marble Carvers ; Painters and Decorators. A collection of Casts, Books, and Photographs of examples of Architectural Ornament of all periods is being made, and will be further added to from time to time.

In the Applied Physics and Electrical Engineering Department the application of the laws of Physics to the various constructive and engineering crafts and to manufacturing processes generally is treated. With each course of lectures there is associated a definite course of laboratory and workshop training, to which great importance is attached, as thereby students are brought into living touch with the actual laws and phenomena treated in the lectures.

The Department, when completely equipped, will have two large physical and electrical laboratories, another laboratory for heavy electrical engineering, an instrumental-making shop, a room for electro-deposition, and the dynamo room of the Institute, containing two 84 H.P. dynamos, switchboards, testing instruments, &c. In addition, the high-speed and low-speed engines, and the boilers will be designed to enable experiments to be made on a working scale. Many of the machines in the various workshops of the Institute will be driven electrically, and the action of the motors used will be studied under working conditions.

In the Horological Department, as in the preceding ones, an attempt is being made to meet the special requirements of the district. As great diversity of opinion exists in the trade regarding the best method of giving Technical Instruction in Horology, the Department has been started in a tentative and pioneer manner. The courses are valuable not only to those engaged in Clock Making, but also to those engaged in Instrument Making, Cycle Making, Gas Meter Making—in fact, to all trades in which small gearing work enters into the construction of the articles or machines made.

In the neighbourhood of Clerkenwell there are numerous workshops, some of considerable size, in which various applications of Electro-Chemistry are carried on. The greater number are engaged in the Electro-Plating Industry in its different branches of Electro-Gilding, Silver-Plating, Nickel Plating, &c. In addition, many Electro-typing Workshops connected with the Printing Trades are within a reasonably short distance from the Northampton Institute. A special Laboratory and Workshop have been equipped with modern arrangements, for practical work in Electro-Chemistry.

In the Domestic Economy and Women's Trades Department there is a Day School intended for Girls, who have obtained an elementary education, and designed to enable them to train in subjects of Domestic Economy. The subjects of instruction include:—Cookery and Chemistry of Food, Housewifery, Laundry Work, Dress Cutting and Making, Plain Needlework, and Hygiene. The equipment and apparatus of the Day Domestic Economy School will be available in the evening for the teaching of adults. This Department also includes instruction in Home Millinery, St. John Ambulance Lectures on First Aid to the Injured, Nursing and Hygiene.

The classes in the Women's Trades section are on a footing entirely different from those in the Domestic Economy section. They are intended for apprentices and others actually engaged in the various trades dealt with, such as Millinery, Dressmaking, and Tailor Cutting, and Artificial Flower Making, and the chief aim of each class is to give the students a wider knowledge of the artistic and other principles, underlying the trade in which they are engaged, than can usually be obtained in the minutely sub-divided work of a factory or workshop. They will thus become to a greater or less extent independent of those sudden and sometimes violent changes of trade caused by alterations of fashion or otherwise. At the same time it is hoped that students may qualify themselves for more responsible positions in their daily work, and thus be enabled to earn higher wages.

The work in the Social and Recreative section is of a varied character. The provision made in the buildings for carrying on such work includes a Large Hall for Entertainments, Rooms underneath, suitable for music classes, Social and Club Rooms for Men and Women, Library and Reading Rooms, a Gymnasium, a Swimming Bath, and Refreshment Rooms. The Large Hall is capable of seating more than 1,300 people exclusive of platform accommodation, and is used during the winter season for concerts and other entertainments. It is provided with a fine organ by Binns of Leeds. The Swimming Bath is a large one, well fitted with the usual modern accessories. The basin or pond is lined with white marble, and is 100 feet long by 35 feet wide and surrounded with convenient dressing boxes.

Such are the comprehensive facilities for self-improvement offered by this Institution to the trade-workers of Clerkenwell. It remains only to note a few interesting points in connection with the various fields of effort outlined above.

The fees taken are insufficient to pay even the under staff. The mere cost of maintenance is enormous, without considering the cost of the teaching. The bulk of the revenue is derived from the City Parochial Charities, which contribute over £4,000 a year. The Skinners' Company and the Technical Education Board of the London County Council grant each another £1,000. Even so it has not been possible yet to complete the building and put all the departments we have described in working order. All the departments are dove-tailed into each other as regards the aims of their work. Thus the patterns made in the Pattern Maker's shop are those used to work from in the casting room, and the Designs made in the Art Rooms are utilised in the Artistic Crafts workshops.

The Art Rooms possess a very interesting feature in the reflected light obtained from inverted electric arcs shaded below, so that the light does not reach the drawing desks directly, causing shadows along the edges of rulers used in mechanical drawing, but is thrown up against a white ceiling and thence descends in a diffused form resembling daylight and causing no perceptible shadow. A remarkable feature of the mechanical side of the Institution is that there is no shafting to convey power. Nothing goes out of the dynamo-room but copper wires, and yet through the medium of these wires the whole building is brilliantly lighted and all the lathes and other machinery in the workshops are driven— a striking object-lesson in electric power. The switchboard in the dynamo-room is another striking object-lesson. It controls 24 distinct circuits. The movement of a single lever imme-

diately connects these circuits with the street mains, if anything should happen to the circuits in the building.

Two curious features of the work are the neglect of the facilities offered which is shown by the women workers of the neighbourhood— in the millinery classes, for instance,—and the comparatively small audiences at the concerts and entertainments. The former, Dr. Walmsley, the Principal, attributes mainly to ignorance and partly to indifference on the part of both the women workers and their employers. May it not also be due to the fact that the severe conditions of daily labour tell more heavily on the women than on the men, and leave them less energy for self-improvement in the evening, since this neglect of opportunities runs through the women's trades? The latter, Dr. Walmsley attributes to the close proximity of the Grand and Sadler's Wells Theatres, the latter offering the material attraction of a penny gallery. But the incorrigible ignorance of the true-born Briton of what is going on in his immediate neighbourhood is here also a probable cause.

In this Institution the amateur is conspicuous by his absence, for the very simple reason that it is impossible to teach the amateur, who knows nothing to begin with, and the trade worker, who comes equipped with a fair amount of practical knowledge, at the same time. The Institute supplies the trade worker with an opportunity of handling the newest tools, learning the newest methods, and teaches him to grasp the scientific principles underlying the work of all trades, but cannot supply him with the daily practice in the workshop without which his technical education cannot be regarded as complete. There is no manual instruction in the ordinary sense of the term. To supply the deficencies of the trade workshop, and remedy the consequences of the decay of the apprenticeship system, is at once the aim and the *raison d'être* of this Institute. Lastly, it is important to note that the whole of the work is educative or connected with some form or other research. Any attempt to compete with the local or any trades is purposely avoided.

(2) The Borough Polytechnic Institute.*

The foregoing description of the Northampton Institute will give our readers a fair idea of the general aim and scope of a well appointed technological Institute under the favouring circumstances of an eminently suitable building and site. We turn now to one which has not such

---

* Much of the information here given is extracted from an interesting pamphlet. "Description of the Borough Polytechnic Institute and its Work," price 3d presented to us on the occasion of our visit.—*Editor E.R.*

advantages, and one whose work is of a less purely technical nature. It will be needless to recapitulate the various departments. They are common to all the leading polytechnics. We shall draw attention only to those which differentiate the work of the Borough Polytechnic from the Northampton Institute.

The Borough Polytechnic, now housed in the old building of the Borough Road Training College, is situated close to the main arteries of traffic leading from London to the Southern Suburbs, which are the dormitories of the City and Central London, and is in the midst of a densely populated and very poor neighbourhood. Since it started, in September 1892, the work has developed so much, that an extension of the building has now become inevitable. There are to be workshops to accommodate Printers, Wheelwrights, Bakers, &c., a new School of Cookery, snd two new Class Rooms.

The Charity Commissioners expressed the hope that smaller Institutes, more or less subordinate to the Central Institution, would be organised, so that a chain of useful influence would be made from the lower to higher levels of age and capacity. To this end the Governors have established two Branch Institutes, one in Bermondsey and the other at Norwood, and affiliated eleven local Institutes and Clubs.

The Educational work of the Institute is primarily intended to assist young men and women who are engaged in Commercial and Industrial Occupations to obtain knowledge, which will benefit them in their everyday work. An important part of the work is that of the Special Trade Classes. The object of the instruction given in them is to supplement the training of the factory workshop, and not to supersede it. Students are not permitted to attend workshop classes unless they attend the corresponding theoretical classes.

The Governors are anxious to establish trade classes for women, but in many trades it has been found to be practically impossible, as the women do chiefly the unskilled work, and if any attempt were made to teach them the higher branches of the trade in which they are employed the existing trade conditions as recognised by the trade societies would be interfered with. A trade class for dressmakers has, however, been formed, and a class for women engaged in boot and shoe manufacture. The opening of this class was mainly due to the assistance of an employer in the district, a most interesting fact. Among the other classes and lectures we may note those for Wheelwrights' Work, Typography, Bookbinding, Boot and Shoe Manufacture (Men and Women), and Bread-making. The classes have been generally much appreciated both by employers and workmen; and they are carried on with the co-operation of the Trade Societies. Then there are the usual Science and

Art Classes for such subjects as Practical Plane and Solid Geometry, Mathematics, Physics, and Art. There are Commercial Classes for Bookkeeping, Shorthand, Modern Languages, &c., and Classes in General and Literary Subjects, Music and Elocution.

The Domestic Economy School is intended primarily for girls who have passed at least the Fifth Standard of the Elementary Schools. The School is open in the afternoon only, so that in the morning pupils can either attend their Elementary School or help with the work at home, an arrangement which suits the convenience of the parents. Instruction is given in Cookery, Laundry Work, Needlework and Dressmaking, Housewifery, Hygiene, Chemistry of Food, Physical Exercises, and Swimming. An attempt is made to keep in touch with the girls after they have passed through the School by means of an Old Girls' Association.

The absence of any well-equipped Technical Day School in the immediate neighbourhood, has induced the Governors to arrange for the use of their Workshops, Laboratories, and Appliances for the practical teaching of Day Pupils after they have left the ordinary Elementary School. The object is to provide a superior education different in character from that obtainable in any ordinary Elementary School, and to prepare pupils for the several occupations in which a knowledge of practical Science, Art, and Mechanical Drawing, and the use of hand and machine tools, is absolutely necessary.

Of the two branch Institutes one is the Leathersellers' Company's Tanning School at Bermondsey. This is carried on as a branch of the Borough Polytechnic Institute in a building known as Herold's Institute. It is situated in the heart of the leather industry, and its work is carried on in two departments, Leather Tanning and Leather Dyeing. The nstruction is technological and practical, and includes the special laboratory work appertaining to the chemistry of the trades. A special Laboratory is fitted up for experimental work in leather dyeing. A marked appreciation is shown by those engaged in the leather trades of the work of these departments. A few tanneries have thrown open their factories for inspection by the Class students. Many applications have been received from manufacturers for students to fill vacancies in their factories. The knowledge acquired by students has enabled them to take positions of responsibility and increase their incomes. For example, one student, a working tanner, earning less than £2 per week, is now enable to take charge of a factory at £5 per week.

The other Branch is the Norwood Technical Institute, which has been incorporated with the Borough Polytechnic. The work of the Norwood Institute is mainly educational, and is particularly devoted to

affording that scientific and technical instruction, which is imperative as a basis for Trade and Technical special class-training. A feature of the Institute is the Day Domestic Economy School, which provides instruction and practice in Household Work for girls above thirteen years of age.

We turn now to the Social Work of the Borough Polytechnic Institute. The Govenors recognise that all social work must be educational. The members must be lifted out of their dull surroundings and introduced to a higher and better life. A large number of agencies are at work in the Institute for the intellectual, moral and physical improvement of the members, managed by the members themselves. It is found a great advantage to encourage the men and women to join the same societies and to have the same interests, and the men have always shown a generous spirit in their behaviour and a readiness to help the girls forward. On the other hand, the girls exercise a refining influence on the men. We cannot now do more than glance at these agencies for social culture; but a mere list of those which are specially novel, though they form but a fraction of the numerous societies and clubs connected with the Institute, conveys a strong notion of the life and vigour of this factor of education in London and the good work it is doing. There is a House of Commons, Shakespeare Society, Antiquarian Society, Photographic Society, Savings Bank, Dispensary Club for Women, Unemployed Fund, Fire Brigade, Emigration Society, Cycling Club, and a monthly paper, the *Polytechnic News*. Moreover, once a month, the Governors and others give "At Homes," at which new members are "presented." But perhaps the most striking feature of all is the Institute Council. Composed of representatives elected by the various sections, the Council is formed to assist the Governors and officials in maintaining the good government of the Institute, and in otherwise promoting efficiency and the comfort of the members. Under a strong and large-minded Principal what a power for good this Council must be! To this description we need add only a few general remarks in elucidation of the work and aims of the Borough Polytechnic.

At the beginning of every session new members meet and are introduced to each other in the Lecture Hall. In the intervals between singing and recitations the Secretaries of the various clubs make speeches of a minute's length explaining the advantages of their respective societies and inviting the new members to join. These meetings are most quiet, orderly and refined. The sexes show a tendency to keep apart until the ladies and gentlemen in charge have succeeded in effecting a *rapprochement*.

Having been established five years, this Polytechnic is able to show some interesting specimens of the work of its students. In the Plumber's Shop there is a fine specimen of an ornamental rain-water head, which won a Technical Education Board Scholarship, and there are also some very fine specimens of soldering on exhibition. The students in the Bricklayer's Shop have set up a fine arch in one of the corridors, and Mr. Millis, the Principal, intends eventually to incorporate in one side of this corridor a number of specimens of constructive work by the students, so as to form a standing exhibition of the work of twelve workshops.

The science work is grafted on the technical work. The mere earning of Science and Art grants is scouted, except in so far as it forms a part of the technical work for which the Institute is primarily intended. The teachers in Polytechnics do not, in the opinion of Mr. Millis, so much want training as better salaries to relieve them from the necessity of earning their living by daily labour, which deprives them of all leisure for study and self-improvement. The opening of the Day Technical School somewhat relieves this strain by enabling the Polytechnic to occupy the whole time of the teacher, and therefore pay him a salary which renders him independent of daily labour.

In a lecture at the Manchester Municipal Technical School last year Mr. Millis said : " I am afraid that workmen, as a rule, think too little of the value of Science, because they do not at once see how it is to be applied. I believe the young workman should have offered him the fullest opportunities in the way of education, directly and indirectly connected with his trade, and thus have opened to him the possibilities of inventing new processes in his trade, or of adapting himself to the ever-changing conditions of manufacture that come about by the growth of general education, and the advance of scientific discovery." He has also kindly furnished us with the following additional information.

" Though the Institute is strong in its trade and technical work, we endeavour to provide for the wants of all classes and hope to develop a more literary side later, but *great care* is required in an institution such as ours. Otherwise we may drive out the actual artizan student and become an institution more adapted for the middle classes. We want to give an education which will assist in producing all-round workmen. Science is taught through the trades, and, considering the class of people we desire to, and do, reach, it would be fatal to insist on attendance at pure science classes, preparatory to entering a trade class. My experience is that many students join Science and Art Classes after

they have joined a Trade Class. They then begin to see the benefit of other branches of study."

Mr. Millis is an enthusiast for making all technical work educative in the highest sense. He will not allow any finished work to be done, but merely such portions of the complete work as illustrate the fundamental principles underlying its construction. "We don't build engines," he said, "we only illustrate the principles upon which the parts of an engine are made." So he makes a strong point of accuracy with his day boys, because accuracy will help them in any and every trade. The dovetailing principle is also a strong point with him. Thus the forges are used not so much to make a smithy as to teach the workmen to make their own tools. So, too, the Plumbers are taught to make their own solder. The Art Rooms prepare the designs from which the Bookbinders and Plumbers work. One of the cleverest students in shading from the cast is a working plumber. There, too, we saw one of the girls from a famous firm of potters conventionalising designs from nature drawings she had made to improve her work at the pottery. But perhaps the most significant feature in the educational department of this vigorous institution is the fact that the French and German are taught by a woman, a Russian lady, who teaches both the women and the men. The force of educational liberalism could no further go.—*Educational Review.*

HIGHER-GRADE SCHOOLS, ÉCOLES PRIMAIRES SUPÉRIEURES, AND REALSCHULEN: A COMPARISON.

Mr. Morant's clear and exhaustive account of the French system of Higher Primary Schools* will be found a valuable source of information by all those who are studying the problem of the delimitation of primary and secondary education. It is evident, not only that Mr. Morant has made a careful study of the French system, but also that he has a fair acquaintance with English higher-grade schools and that he understands their point of view. Although one may differ from some of his conclusions, it is impossible not to feel that his paper is the work of a man of wide experience, keen observation, and sound judgment. Mr. Sadler's paper on the Berlin *Realschulen* is also very instructive, but as it only deals with some twelve schools, all in one town and all founded within the last few years, it is much more restricted in its scope.

* "Special Reports on Educational Subjects: Education Department" (Eyre & Spottiswoode).

In comparing the *Écoles primaires supérieures* and the Berlin *Realschulen* with English higher-grade schools, it is useful to begin by considering the history of each set of schools. The French schools are the oldest. Mr Morant says (page 94) that in one place after another, but especially in the greater cities, the need began to be felt as long ago as the early years of this century for schools which would provide an education higher than that of the ordinary elememtary school, but different in character and scope, and especially in duration, from secondary education, whether classical or modern. Schools to supply this need were founded by the municipalities. By-and-by the State began to encourage the movement by giving grants in aid. Meantime the schools increased in numbers, and their curricula, from being vaguely continuative, began to grow more technical in character. Then in 1880 came the commencement of State organization. Since 1880 there has been a great increase in the numbers of these schools, and they have divided themselves, roughly speaking, into two classes, trade schools, and schools giving a general education, but since 1893 there has been a marked tendency in these latter schools to give a greatly increased quantum of quasi-technical education in place of the general education which has hitherto predominated.

In England these schools began to come into existence in the early eighties, some ten or twelve years after elementary education had become compulsory. As in France, they appeared first in the large towns. During these early years most town schools with a fair proportion of seventh-standard scholars took to calling themselves Higher-Grade Schools, but the Board Schools, with their more liberal staff and their superior accommodation, were rapidly forging ahead, and by 1890 the name Higher-Grade School was practically confined to one Board School in each town, which became *the* Higher-Grade School. Only the very largest towns have more than one higher-grade school. The name is perhaps not a very suitable one, but it has become established. These schools all agreed in being elementary schools with a considerable number of ex-standard scholars. To find something for the ex-standard scholars to do they were taught science for the South Kensington examinations. It was found that they passed very well and earned large grants. These grants enabled the School Boards to staff and equip higher-grade schools in a much more generous manner than ordinary elementary schools without provoking serious opposition from the ratepayers, among whom these schools in their early days were far from popular. To-day the upper department of a higher-grade school has become, in nearly all cases, what is known as a School of Science,

with a curriculum in which science, mathematics, and manual instruction predominate, and other subjects are treated as subsidiary.

The *Realschulen* of Berlin began to be founded in 1883. They were not an upgrowth of the elementary, but a downgrowth of the secondary system. Like the English schools they were, however, intended to provide for the further education, partly of those elementary-school boys who will in any case stay at school a year or two longer than the average, and partly to provide for the education of those promising elementary-school boys who would have to leave early because of their parents' lack of means, but who can be retained at school a little longer by a system of scholarships. They are differentiated from the other Prussian *Realschulen* by the fact that modern languages are not taught in the two lowest classes, but are begun in that class which a boy would enter who had remained in an elementary school till the age of twelve.

On comparing the history of the three sets of schools it becomes evident that they all came into existence to provide for a class of elementary-school children whose parents wish to keep them at school for two or three years beyond the usual leaving age in elementary schools, but who will nearly all leave before the age of sixteen. In France and Germany, where secondary education is at least as well organized as elementary, it was understood from the first that such pupils could not profitably be passed forward into those secondary schools where the leaving age is sixteen and upwards, and, therefore, almost from the first, governing bodies, whether central or municipal, endeavoured to frame suitable curricula for this class of pupils. In France these curricula have a leaning to technical education; in Berlin modern languages and mathematics form the most important part of the curricula. In England, where elementary education is well organized and secondary education is not organized at all, the higher-grade schools attracted no notice from the educational public until they had become throughly established. Then, when a certain number of local grammar schools began to lose a few pupils, higher-grade schools suddenly became famous—notorious is, perhaps, a better word—and many benevolent schemes were promulgated for their better organization. The drift of most of these schemes is sufficiently indicated by the remark of the Royal Commissioners on Secondary Education (Vol. I., page 144):—"We may hold it as certain that . . . these schools admit of correlation and development, but not of abolition or even repression." The curriculum of these schools up to about three years ago consisted chiefly of science, falsely so-called, mathematics, and drawing, with a very little literature. To-day the curriculum still consists mainly of science, mathematics, and

manual instruction, but there is a fair amount of literary instruction given, and the science is taught on a rational plan. It is important to notice two things, first, that the schools have become science schools mainly by a financial accident, and not because there was any effective demand for science teaching, and secondly, that they must be possessed of extraordinary vitality or they would have been killed long ago by the painstaking and conscientious mal-administration of South Kensington in the year previous to 1895.

These schools do not seem in France and Germany to have provoked the same hostility which they have to meet here. The reason appears to be that in France and Germany "secondary education" is a clearly defined term, and secondary schools as a body are at least as efficient as primary schools. On the other hand, in England secondary education is an ill-defined term, and secondary schools as a body are not so uniformly efficient as primary schools, that is to say, there is a greater range of difference between the good schools and the bad schools, and the average school is not so good as it would be if secondary schools as a body had been submitted to efficient inspection for the last thirty years. The consequence of this is that, while higher-grade schools have for the most part drawn their pupils from the class of pupils who attend elementary schools, they have also taken a few boys whose parents would have preferred to send them to the local grammar school if they had been sure that the latter were efficient. Some headmasters of grammar schools have thereupon fallen into a state of panic; they have dreamed of the indefinite multiplication of higher-grade schools, and have declared that the latter were useless and dangerous and ought to be abolished. When the impossibility of this course became evident they developed an enthusiasm for the reform of the higher-grade school curriculum. It would have been more easy to believe in the sincerity of this enthusiasm if it had been manifested in the days when the curriculum of higher-grade schools was really an unsuitable one, and when the headmasters of these schools had to fight single-handed a continuous battle with the military stupidity of the Science and Art Department. Latterly, however, a more reasonable spirit has prevailed, both sides have become better known to one another, and it has become evident that grammar schools and higher-grade schools have each their proper duty to perform, and that they are complementary and not antagonistic to each other.

Competition between schools is not under normal circumstances a good thing, but I do not believe that higher-grade schools ever have competed seriously with efficient local secondary schools or that they

ever will do so. The extent to which competition has taken place has been greatly exaggerated. Such competition as there is will be very useful if it stimulates the weaker and less efficient grammar schools to improve their premises, their apparatus, and, above all, their teaching staff, and if it further brings about, as it seems likely to do, an official classification of existing local grammar schools into secondary, higher primary, and primary schools. Certainly, the existence of higher-grade schools has given a strong stimulus to the movement for the proper organization of secondary education.

The relations which exist between the three sets of schools, and the elementary school systems with which they are respectively connected, present some interesting points of comparison. In France, the higher primary schools charge no fee, and only grant admission to pupils who have passed a year in the highest standard of the elementary school and gained a leaving certificate. In Berlin a fee of about £4 per year is charged; boys who can pay the fee are admitted at about ten years old, and some ten per cent. of the whole school consists of boys who are passed on at the age of twelve from the elementary school by means of scholarships. In England most higher-grade schools charge a fee of 6*d.* a week, but they provide a large number of free places. The class which most headmasters like to begin with is Standard IV. Where a higher-grade school begins with Standard I., this is usually because it has been formed out of a previously existing elementary school. In Birmingham the higher-grade schools begin with Standard VII., a plan which meets with Mr. Morant's approval, and which is frequently extolled by people who have no personal knowledge either of the working of a higher-grade school or of the local circumstances in Birmingham. The main mischief resulting from this plan is that boys are in the school too short a time for it to exercise any real influence upon them, whether from the ethical or intellectual point of view. Further, because they come to the school later than in other higher-grade schools, they have not time to get fond of school, and so they leave earlier. The older of the Birmingham higher-grade schools was founded thirteen years ago. It is still housed in the building in which it commenced work, namely, an old cocoa factory, a dingy building unsuitable in every way for the work of any school, not to mention a higher-grade school. It is curious to note how the three sets of schools have to face the same difficulties. In Germany, as in England, doctrinaire opinion inclines to raising the age of admission from ten to twelve, but in both countries the headmasters of the schools are emphatically in favour of the earlier age. In France the difficulty is less accute, because the pupils can fulfil all the

conditions of admission and yet enter at the age of eleven. In Berlin, as in England, the teachers of the elementary schools complain a good deal that their schools are robbed of what Englishmen call the "best boys," and Berliners das unentbehrliche Ferment." Mr. Morant does not say whether the same difficulty exists in France, but I infer that it does from his statement (page 358), that many pupils who would have profited greatly by entering a primary school and following the full course had been misled into staying at ex-standard classes where the instruction practically differed but little from that of the highest classes of the elementary school. *Coelum non animum mutant.* It is only in moments of inspiration that some schoolmasters ever grasp the fact that teachers exist for schools, and not schools for teachers.

In all three systems the schools appear to be *écoles réginales*, that is, they draw their boys from all the surrounding district. In England and in Berlin some irritation appears to exist on this score. In France the irritation seems to be absent. Probably the reason is that in England and Berlin the expense falls, or is believed to fall, on the local authority, while in France it is understood to be borne mainly by the central authority.

It is interesting to note that the money spent upon the French and the German schools is allocated neither by results of examinations nor by capitation. Yet the schools flourish, and are not less efficient than the institutions to which South Kensington doles out its elaborately calculated sixpennyworths of aid.

Mr. Morant explains (page 291) that in the French schools the conditions of admission are drawn up with the idea of excluding all children who, being intellectually unable to profit by the higher instruction given, would fail to repay the country by their improved talent and industry the value of the public funds that would be spent upon them. After taking precautions to exclude the unsuitable, great efforts are made, by means of an extensive and universally applied system of scholarships, to put these schools within the reach of the most intelligent and promising of the poorest class, these scholarships being awarded on the result of strict competitive examinations. The ends aimed at here are desirable enough, but it seems to me that the means employed would in England, at any rate, fail to secure these ends. To begin with, it is impossible at the age of eleven years to pick out with any certainty those boys who are fit to become either the captains or the *sous-officiers* of industry. An examination at that age always favours precocious boys, especially those who have a literary turn. If the examination is *viva voce* then boys from an educated home have an enormous advantage over

the shy awkward lads from poorer homes. And further, since elementary schools are by no means all alike in efficiency, a boy's chance of getting a scholarship will always depend a good deal upon what school he is attending. But there is a more serious objection than any of these. The qualities most necessary both for the captains and the *sous-officiers* of industry are strength of character and soundness of judgment combined with good mental ability. These qualities, however, do not as a general rule show themselves at the age of eleven, and boys who possess them are generally lads of good bodily constitution, not dunces, but more distinguished in the playground than the class-room. Such boys always develop slowly, and are much more easy to recognise at the age of fourteen or fifteen than at eleven. It is possible, of course, that differences of race may affect the question of earlier or later development, and in France the system may work well, but it would work badly here. The plan adopted in England and in Berlin, of admitting all comers who care to pay the fee, and reserving a certain number of free places, works fairly well, and really does secure the boys who will become the *sous-officiers* of industry, for it must not be forgotten that heredity is a factor which cannot be overlooked. The future *sous-officiers* will largely be found among the children of the present *sous-officiers*.

Mr. Morant states that the dominant idea which inspires the French higher primary schools is that the schools will best serve society by developing in the children a love for the work by which they will have to get their living. This idea is well put in the quotation from LeBlanc which is prefixed to the paper: "The first and best safeguard that our schools can give for the morality of the man is to create in every scholar an aptitude for and a liking for the labour by which he will have to live." Mr. Sadler says that the *Realschulen* keep before them the ideal of a liberal education, but that their curriculum naturally leads up to a commercial life (pages 387-388). He adds that in the opinion of competent observers the ethical influences of the *Realschulen* are not inferior to those of the *Gymnasien*. As the leaving certificate of the *Realschulen* is a key to the higher positions in business life it is probable that for the children of poorer parents the ethical influence of the *Realschulen* will be based to a certain extent on the gospel of getting-on. English higher-grade schools, unlike the corresponding schools in France and in Berlin, were not founded with any definite aim. They were not even founded of malice aforethought. They owe their existence to the pressure of necessity. School Boards had ex-standard children for whom they had to provide somehow, and so they founded a higher-grade school. At first there was no very clear notion as to what

subjects a higher-grade school should teach, and why it should teach them, but by a financial accident the schools drifted into teaching science. So far as my experience goes this curriculum was distinctly unpopular with the parents, but as the only alternatives they had were to take their children away altogether or to transfer them to a grammar school, they grumbled and submitted.

In 1895 the course for organized science schools was reorganized and the grants began to be paid on a less mischievous system than formerly, so that at present the course is fairly suitable for the average higher-grade school, and with a little modification could be made a very good course indeed. I desire to believe that an ethical idea, or at any rate an idea of some sort, inspires the administration of South Kensington. *Credo quia impossibile.* But I am sure that the School Boards had to find accommodation first and ideas afterwards. It must be remembered that a School Board is not a single entity, but consists of separate members who are constanty changing. Consequently a School Board is often animated by half-a-dozen ideas at one and the same time, for the most part benevolent, but often hopelessly contradictory. I should say that some of the main ideas which have inspired School Boards in maintaining their higher-grade schools have been the desire to open out a career for promising boys, the notion that education is a good thing and cannot be too widely diffused, the motion of a ladder from the gutter to the University, the German competition scare, Robert Lowe's notion that we must educate our masters, and Herbert Spencer's opinion that due instruction should be given in science. School Boards are not yet however, in my opinion, actuated by that clear dominant idea which guides the administration of the French schools, namely, that the workman shall be so trained that he shall love his work for its own sake. Order and intention are, however, developing themselves out of chaos and aimlessness, and School Boards are steadily setting themselves to consider what is the end that their higher-grade schools ought to serve in order to be of the most use to the body politic. A good deal of their time and thought, however, has been occupied in protesting against the arbitrary and ignorant mismanagement of South Kensington, and in repelling the attacks of different people who would have been glad to see higher-grade schools abolished. A School Board which desires that scholars in a school of science shall receive instruction in Holy Scripture and in singing, but is informed by " my lords " that " literatuse " includes cookery, carpentry, and dress-cutting, but excludes Holy Scripture and singing, finds it useless to sit down and consider what might be the chief end of higher-grade schools if Departments ceased from troubling. The fact

remains that the English system of higher-grade schools has had up to the present no clear controlling idea from within, and that the people who are endeavouring to impose a controlling idea upon it from without are too much in the position of interested parties and too little acquainted with the facts of the case to be trustworthy guides in this very important matter. Meantime the matter is settling itself in a pretty satisfactory way. *Solvitur ambulando.*

Another interesting point of comparison between the three sets of schools is the nature of the teaching staff. I gather from Mr. Morant's paper that in France the higher primary schools are staffed by the pick of the elementary school teachers. The Berlin *Realschulen* are staffed by highly educated and well trained secondary teachers. Mr. Sadler states the salaries paid to these men, but he does not say whether these salaries are higher or lower than those paid in secondary schools above the rank of *Realschulen*. The point is important, because it would determine whether or not the teachers in the *Realschulen* are an inferior class of secondary teachers. It is certain, however, that if twelve *Realschulen* were opened in England to-morrow they could not be staffed with teachers equal to the German teachers, because, in England, men who combine professional training with the high standard of scholarship which these German teachers reach do not exist in sufficient numbers. The English schools are staffed by men from the pick of the elementary teachers. It would undoubtedly be a great advantage if some of these men had themselves had better educational facilities in their early years, but it must not be forgotten that they are picked men, that good natural ability helped by the persevering study of maturer years does a good deal to compensate for the lack of instruction in earlier life, and that power of stimulating boys depends a good deal upon natural ability and force of character.

Oxford and Cambridge men have a curious and probably a real difficulty in avoiding the assumption that men who have not enjoyed their advantages must necessarily be inferior to them both in teaching power and in attainments. They forget that what is perhaps true when one compares types is not necessarily true when one compares individuals—that because the English are a taller race than the French, it does not follow that Mr. A. is taller than Monsieur B. They also forget that professional training counts for something, that moral force and intellectual ability are not the monopoly of any one class, and that while higher-grade schools certainly get the pick of the elementary teachers the local grammar schools can hardly be said to be staffed with the pick of the secondary teachers. The social class of the scholars attending

these schools appears to be much the same in all three countries. Mr. Morant says (page 322) that the French schools are not used to any great extent by any social class higher than that of the *petit bourgeois* though there are instances where the well-to-do classes have made considerable use of the admirable instruction therein provided. The tables given by Mr. Sadler (page 400) show that after making due allowance for the fact that the schools spoken of are all metropolitan, much the same thing exists in the Berlin *Realschulen*. In England the great bulk of the scholars are the children of skilled workmen and of the shop-keeping class. Besides this the schools usually contain a fair proportion of children of well-to-do people who are willing to risk the loss a little social prestige in order to be sure that their children are being soundly taught, of children of widows with small means and other persons in reduced circumstances, and of children of very poor people who exercise great self-denial in order to keep them at school.

As to the occupations which pupils take up on leaving comparisons are difficult to make. Any comparison with Germany is vitiated by the facts that all the German schools referred to are metropolitan, while London has scarcely any high-grade schools of the type under consideration; that the privileges conferred by German law on pupils who have passed through the *Realschulen* must exercise a powerful influence in deflecting the boys towards certain occupations, and that the *Realschulen* very largely serve as schools prepartory to higher secondary schools. In France a deliberate effort is made to direct the pupils into industrial life, and special care is taken to avoid the production of *déclassés*. The table on page 368 shows exactly what occupations were taken up by the pupils who left French higher primary schools in 1895. In the absence of any such comprehensive table it is diffcult to speak with any great amount of certainty as to the future careers of the boys who leave the higher-grade schools. The difficulty is increased by the fact that the occupation which a boy takes up on leaving school is not necessarily the occupation he intends to follow permanently. The bulk of the boys find immediate employment either in distinctly manual occupations or in shops and offices, a fair proportion continue their education in other secondary schools or in day-classes at technical colleges and institutes, a fair proportion enter upon occupations requiring special knowledge in science or skill in drawing, and a few become pupil teachers. Where the father is a shopkeeper, an employer, or a workman working on his own account, the boy frequently enters his father's business, and the education of such a boy can be prolonged with advantage to himself and the public, and with little risk of making him a *déclassè*. Many of

the boys who leave continue their education in evening classes, and form the most satisfactory pupils which such classes can get hold of. They have had a good start in mathematics, drawing, science, and languages, and hence they are able to take up with some degree of intelligence the study of technical subjects. A return recently prepared shows that out of ninety-eight boys who left one particular higher-grade school last July only five of those whose work permitted them to enter the evening classes at the local technical school had failed to do so. I do not think there is much reason to fear that higher-grade schools will produce many *déclassés*. *Déclassés* are far more likely to be produced by well-meant but injudicious attempts to pass forward to Oxford or Cambridge youths of scanty means and no social position, but, as a matter of fact, higher-grade schools seldom or never make such an attempt. It would be well if the parents of such boys would ask themselves the very sensible question of Mr. Morant's Frenchmen, "ce que feront leurs fils une fois bacheliers."

The fact is, the whole question of the production of *déclassés* goes a good deal deeper than the scope of Mr. Morant's article will allow him to discuss it. It is all very well to impress upon a boy the dignity of labour and the delight of doing one's work in the artistic spirit; but the boy knows and his parents know that manual labour is for the most part badly paid, and that in many cases, on account of extreme division of labour, it is drearily monotonous. Moreover, the conditions of modern production frequently require that an article should be made cheaply rather than well, and that being so, the artistic spirit in manual work, the delight of a workman in making "a good job" of any given piece of work, has little scope. Still, if schools can do anything to foster the idea that manual work is as dignified and as useful as any of the occupations which require a black coat and are commonly called respectable, it is, I think, their duty to do it, and after some years their action might have some appreciable effect. At any rate, it is better that schools should aim at fitting their pupils for the life the pupils will have to live than that they should spend all their energies in fostering the desire to "get on," the spirit of making haste to be rich. Boys will imbibe so much of this spirit from other sources that the country never need fear that they will have too little of it. On the other hand the lesson that a man should make the most of the position he has, and cheerfully do his duty in it, is a far harder one to learn, and the influences that teach it are few and weak. Let us hope that not only higher-grade schools, but grammar schools and elementary schools may be added to the number.—*Journal of Education*,

MASTER AND PUPIL.

The following essay on the relations that should exist between masters and boys was written by a sixth-form boy in a public school. Though the point of view and the experience implied are necessarily somewhat limited, there must be a certain interest to schoolmasters in this candid criticism by one of their subjects.

"There is only one relation between himself and his pupils at which a schoolmaster should aim, and that is love. 'A piece of impossible sentiment,' cry many— unselfishness in nations. Nevertheless it is the bond which has always existed between great teachers and their disciples; and the position of a master to his disciples is certainly that which a teacher should endeavour to establish in his form. And it should not be difficult. Boys love with far greater ease than do men; my belief is there is nothing which boys are readier to do than to love, it is seldom, however, that a schoolmaster does consider it his duty to gain the love of his pupils. Very many, I think, are quite content if they can keep fair order in the form, and force the boys to a certain amount of unwilling labour. Some, I am certain, regard school-hours with exactly the same aversion as do their hardly-used pupils. I have heard schoolmasters declare an absolute detestation of the boys they are supposed to teach. To such men it would seem a wild dream to suppose it possible to secure the love of their form. It must be confessed that, in such cases, it would indeed be nothing but a wild dream.

"It is, of course, in the first instance, nothing but a matter of government. A master who can govern his form will never be reduced to hatred of his boys, nor his boys to contempt of him. But government is a means, not an end: those who make it an end will always have to do what teaching they can, which will be little, and of the most futile nature, either by fear, or by constant punishment, or by wearying personal supervision, or by whatever other imperfect means they secure an imperfect order. 'Trust your boys' it the gushing cry of some schoolmasters, a maxim of government at which, from my superior position of boy, I have always taken the liberty to laugh in my sleeve. You may trust boys who are trustworthy, of course. But when boys are trustworthy, government is secured; and it is the height of folly to trust boys who are not trustworthy. In nine cases out of ten, moreover, the boys know perfectly well that they are not trusted, and by no sign better than that they are constantly hearing that their master trusts them in this, trusts them in that. If their master trusted them in truth, they know they would not be so often reminded of it.

"It appears obvious that boys should not be trusted until they desire the confidence of their master as a matter of course, requiring no comment. And if they do not so, a schoolmaster with high aims would surely consider it his duty to make them, not by giving them cause to consider him a fool for trusting them out of season, but by engaging their affections and teaching them higher notions of honour. Many young teachers, I believe, make the one hardly remediable mistake at their first introduction to their form—that of commencing with a mode of treatment, either of trust or mistrust, severity or leniency. At that nervous moment a teacher has often to take his pupils' word about the methods of the school. His attitude to them must often decide whether he will ever govern these boys or not. He perhaps assumes that they wish to mislead him, and so incurs their dislike; or, worse still, on finding that he has been misled, he treats it as a joke, merely from weakness, and incurs their uttermost contempt. The boys, on the other hand, never make this mistake. They never assume any attitude towards the new master until some word or action of his has enabled them to fathom him.

"If I were introduced to a form of boys whom it would be my duty to teach, I would first of all endeavour to let each and all know I was their master, not by severity or leniency, but by justice. I should assume, in the first place, that they were treating me in good faith. If I found that they were not, I would take care that their laugh should be one of chagrin. If much punishment were necessary at first, I would be ready to sacrifice all my spare time in order to deprive contumacy of the least shadow of enjoyment. Three or four days would be sufficient with the most mutinous of forms. By that time I should have acquired the respect of all the boys with heads on their shoulders, and the fear of the louts and fools. When I had gained the respect of the form, I would turn my attention towards the boys who had shown the greatest sense, and do what I could to secure their liking. This should be perfectly possible for any young master who is eight or ten years older than his boys. He should be a frank and amiable comrade out of school, where he should treat them merely as young friends, allowing any amount of fun and freedom which did not lead to liberties; always ready with help or sympathy; always eager to show how much he appreciated their friendship and confidence. He would so secure not only their liking, but their willing admiration: and in the case of many of the better boys the bond would grow to love.

"When he had made himself a centre of hero-worship to his form, he would be in the best position to teach. Boys will listen to a man

they respect when there is nothing better to do; but from a man whom they admire, and unconsciously regard as a model, they will learn and imbibe in the best sense of the word, during every minute of contact with him."—*Educational Times.*

REVIEWS OF BOOKS.

PHYSIOGRAPHY FOR ADVANCED STUDENTS. By A. T. Simmons, B.Sc., 1897. *Macmillan & Co.*, London.

This is a Supplementary volume to the elementary work on the same subject by the author and presupposes some acquaintance with it. The book though evidently intended for Advanced Students preparing for the higher examinations in Science will be equally useful to the general reader. It is very regrettable that our students, as a rule, are not scientifically inquisitive. It is a common fault of our young men who are turned out of the colleges year after year to leave them without having developed the spirit of scientific inquiry. Education should not be looked upon as a mere passport to employment. Its object should certainly be to create a spirit of scientific inquiry and to evoke the dormant capabilities of the human brain. The workings of nature are infinite and wonderful and the explanations of many natural phenomena around us which should arouse our curiosity and produce a desire to know the why and wherefore of such phenomena. For example, the formation rain and dew, thunder and lightning, the blue colour of the sky, the blowing of the winds, the variations of days and nights and the seasons, the movements of the heavenly bodies, the weathering of the rocks, the formation of lakes and springs, the appearance and disappearance of comets, the formation of eclipses and innumerable other natural phenomena are constantly attracting our attention if we have only eyes to see. An inquiry into such things is certainly interesting, instructive and ennobling to the mind.

Nothing can better develop the sources of reasoning and accurate observation than scientific studies. They enable us to make a better and wider use of all our senses and mental faculties than before. The value of scientific studies is not to be judged from an examinational or monetary point of view but from the broader view of mental culture. It must be admitted, however, that scientific pursuits on the part of many ultimately tend to national prosperity in an indirect way as in the case of England.

It is a well known fact that the physical sciences are not appreciated by the majority of our students who prefer the study of other optional subjects which enable them to go through the examinations very easily.

We hope the day will not be far off when our young men will take more and more to the study of physical science and will contribute their share in the advancement of the science.

The book under review is not only neatly got up and profusely illustrated but is also well written, some portions, such as the chapters on the various kinds of waves, the tides, &c., being exceedingly good.

It is not usual to find such clear descriptions and profuse illustrations in a students' book.

The book certainly deserves a wide circulation much beyond the circle of advanced students preparing for examinations for whom the work has been intended.

TAMIL READERS. By E. Marsden, B.A. (*Macmillan.*)

Mr. Marsden has issued a very good series of Tamil Readers.

The illustrations in the *Primer* are very well chosen, the subjects being far more suitable, than those in the School Book Society's book. The letter-press is clear, and the words simpler in meaning than those to be found in the books generally in use.

The *First Reader* deals with subjects of ordinary life in South India, and is likely to be interesting to young children.

The *Second Reader* is well got up, but is rather lengthy, this, however, seems to be in order to meet the Government requisition as regards the number of pages necessary for the examination.

The *Third Reader* is not only interesting in its prose subjects, which is a desideratum, but the few pieces of Poetry at the end are occasionally fine.

The *Fourth Reader* is well printed, and is much easier reading than the books in vogue; this is chiefly due to the subjects chosen for each chapter being such as are well known in India, and not abstruse.

MACMILLAN'S CANARESE READERS.

The Primer by Mr. M. F. Hari Hara Aiyar, B.A.

The 1st and 2nd Readers by Mr. Marsden and Mr. D. Subhaya, B.A.

The 3rd Reader by Mr. Marsden and Mr. R. Narasimma Charya, MA.

Messrs. Macmillan and Co., deserve to be congratulated on this new venture of theirs. This is the first attempt on the part of an

English publishing firm to bring into existence Vernacular text-books in accordance with modern advanced educational ideas. As a first attempt the Readers are certainly creditable to them. The 2nd and 3rd Readers are all that Readers ought to be, and we specially appreciate the very instinctive lessons on Natural History and Hygiene which they contain. The Primer and the 1st Reader show on the part of their authors want of proficiency in the Canarese language and we regret to find throughout these Readers uncommon words and phrases. In the picture alphabet on p. 31 of the Primer, it would certainly have been better if pure Canarese words had been selected in the place of the unfamiliar Sanskrit words. While we have nothing but praise to offer on the excellent way in which the illustrations have been got up, we are of opinion that the cultivating of the artistic tastes of young boys deserve attention and these illustrations would have been better had they been taken from High Class Indian life. We are sure that their cheapness and their general excellence will make these Readers popular amongst the Canarese-reading public both in this and the Bombay Presidencies.

EDUCATIONAL NOTES.

From the English Journals.

Mr. A. A. Kanthack, M.A., has been elected to the Professorship of Pathology at Cambridge, vacant by the death of Professor Roy.

* * *

The Vice-Chancellor of Cambridge University (Dr. Hill, of Downing) has appointed Sir Henry Irving to be Sir Robert Rede's Lecturer for 1898. The Rede Lectures are usually scientific, or at least quasi-scientific, in character. Sir Henry will lecture on June 15.

* * *

Mr. Alfred Hopkinson, Q.C., M.P., has been elected Principal of Owens College, in succession to Dr. Ward, resigned. Mr. Hopkinson has announced his intention of retiring from Parliament.

* * *

Mr. C. J. Joly, M.A., is appointed Andrews Professor of Astronomy at Trinity College, Dublin, in the place of Professor Rambant,—At the same College, the Rev. E. J. Harvey, M.A., is Donnellan Lecturer for 1898-9.

* * *

Mr. Ronald M. Burrows, M.A., Assistant Professor of Greek at the University College of South Wales, is appointed Professor of Greek, in succession to Professor G. C. Richards.

Miss Emily Penrose (Somerville College), Principal of Bedford College, London, has accepted the post of Principal of Holloway.

* * *

The Professorship of Chinese at Oxford is vacant by the death of Professor Legge.—At Dublin the Professorship of Latin is vacant by the death of Mr. Arthur Palmer.

* * *

Applications are invited for the chair of Moral Philosophy in the University of Edinburgh, and should be lodged with the Secretary to the Curators before the end of March.

* * *

Principal John Caird, D.D., of Glasgow University, has expressed a desire to resign his post, which he has held for many years.

* * *

The Headmastership of Charterhouse School, vacant by the promotion of Canon Haig-Brown to the Mastership of the Charterhouse, has been conferred by the Governors on Principal G. H. Rendall, of Liverpool University College. Mr. Rendall has occupied the chair of Greek at Liverpool.

* * *

Miss Geraldine Hodgson has been appointed Assistant-Professor in English Language and Literature at University College, Aberystwyth, in succession to Mr. Moorman. Miss Hodgson was Cobden scholar at Newnham, and obtained a first-class in the Mental and Moral Sciences Tripos at Cambridge.

* * *

Mr. W. M. Starkie, M.A., Fellow of Trinity College, Dublin, has been appointed President of Queen's College, Galway, in place of Sir Thomas Moffett, resigned. It is worthy of mention that Mr. Starkie is a Roman Catholic.

* * *

Mr. T. King becomes Senior Chief Inspector in the Education Department, in succession to the Rev. T. W. Sharpe, retired.

INDIAN NEWS.

General.

A new college called the "Collegiate Insitution," has recently been opened at Bombay, with Mr. R. P. Karkaria, a distinguished Bombay educationist, as Principal and a strong staff of Indian Honours graduates

of English Universities. The Institution is to be conducted on lines of self-sacrifice and love of learning for its own sake: political discussion is to be avoided. If this programme is adhered to we believe the College has a great future before it and we heartily wish it success.

* * *

The Oxford and Cambridge Dinner is to be held in February at Calcutta. It is a pity that 'Varsity men in other presidencies are not active and united enough to get up similar dinners elsewhere. The Public Schools might very well have their dinners also in the different presidencies, or a general Public School Dinner might be arranged in each presidency town. Madras is extremely backward in this respect.

* * *

The Panjab University held its seventeenth Convocation on January 4th, the Lieutenant-Governor delivering the Convocation Address. Among the degrees conferred were two in Oriental Learning, a Bachelor's and a Master's. This does not compare well with sixteen Masters of Arts, one hundred and four Bachelors of Arts, and twenty three Bachelors of Law.

MADRAS.

We are glad to see that His Excellency the Governor, as Chancellor of Madras University, has appointed Surg.-Lieut.-Col. W. E. King, M.B., Sanitary Commissioner to Government, to give the coming Convocation address. Dr. King is one of the ablest members of the Medical Service, and has done valuable original research work. Madras in particular owes him a heavy debt of gratitude, as it is mainly through him that we have been saved from the plague.

* * *

The recent death of Mr. Basil Lovery removes a worthy educational veteran who presided over Pachaiyappa's High School from 1851 till 1878, during which time the school was gradually developing from a small into a large institution. Since then Mr. Lovery has been Sheriff of Madras, and has received the honour of knighthood from the Pope as an acknowledgment of his zeal in the cause of Roman Catholicism. It is the more to be regretted that the closing year of Mr. Lovery's long and useful life should have been embittered not only by illness but by ingratitude.

* * *

We also regret to learn of the death of Mr. G. K. Winter, Telegraph Engineer of the Madras Railway, a physicist of no slight ability, who has for many years been an Examiner for the University.

Mr. Winter was the inventor of many improvements in the electric communications of the railway, and was a great favourite with all who came in contact with him.

* * *

The Teachers' College Day, which was celebrated on December 21st, was a great success. The grounds were nicely decorated and looked extremely well with their neatly kept turf. The programme was a long one, as the proceedings began in the early morning and lasted all day, culminating in a public meeting presided over by Mr. N. Vaidianatha Iyer. In this, Mr. F. W. Coombes read a most interesting and suggestive paper on Technical Education, which was printed in last month's number of this Journal. Mr. V. Ramasawmy Iyer read a thoughtful essay on "Higher Education in Madras and its results." In this, while defending the cause of education and maintaining that the result of higher education was summed up in the word "modesty," he yet admitted that the educated classes were by no means as moral as they ought to be. He hoped that the State would take over the direct control of Colleges and Schools, and that Universities should become teaching bodies and found libraries. After a number of gentlemen had proposed and responded to toasts the Chairman made a long and interesting speech in which he gave the University and the Educational system in general a somewhat severe drubbing,—perhaps a trifle too severe—although it sounded rather worse than it actually was. In particular it was suggested that the Teachers' College should make its course more comprehensive, and thus counteract the "narrow specialisation" which the Chairman considered the great evil of the present system. Here we beg leave to differ Mr. from Vaidianatha Iyer, for we believe that education in India is in more danger from superficial versatility than narrow specialisation. It is in school and not in the university that the general broad foundations of knowledge must be laid. Later on, excellence in any one subject can unfortunately in this century only be attained by a sacrifice of others, or at least a postponement of their study till a later time. Progress has made a Miltonic education an impossibility except to those who are both wealthy and talented, and even to them in but a small degree specialisation is not a voluntary but an involuntary feature of modern education, and we cannot see that a specialist need necessarily be narrow, while he must be thorough in some one subject.

After the meeting, the Acting Principal, Mr. H. S. Duncan, very hospitably entertained a number of visitors at tea.

* * *

Rajamundry College celebrated its first "College Day" on Dec. 28th in a similar way. The energetic and popular Principal, Mr.

E. W. Middlemast, presided at the Conference, at which steps were taken to push on the collection of subscriptions for the proposed Hostel, as well as for the Poor Scholarship Fund. Mr. Mahmedazun took the chair in the General Meeting, and in the course of his speech expressed his opinion pretty strongly against the vernacular as a medium of scientific instruction. Vernaculars were not flexible enough, and there was none of them sufficiently widespread to do the work of English, which he looked forward to seeing the universal and common speech of India.

* * *

The Madras Athletic Association is in tribulation for want of money and it has been seriously under discussion to hold no competitions this year. Sir Henry Bliss has, however, succeeded in infusing fresh life into the somewhat inert body of the Association, and a movement is on foot to collect subscriptions. The Madras Athlitic Association has done a splendid work in fostering field sports, cricket in particular, and we earnestly hope that the parents of those students who owe their health and happiness largely to its work, will not allow such a really useful society to die out. It has also a reasonable claim on the University and the colleges, and we hope that the University at least may be able to do something for it. At the same time it is the duty of the Association to set its house in order and to pay more attention to econqmy. The directions in which this might be effected would seem to be (1) the expenses of the clerical staff, the work of which is almost purely nominal for the greater part of the year, (2) the expenses of the annual competitions, which might surely be lightened with the help of gate-money.

* * *

The Association should also endeavour to give its members more value for their money, either by admitting them free to big Athletic Sports and Matches, or by providing them with reserved seats. With a certain amount of judicious work the Annual Competitions might become one of the events of the Madras season and a handsome amount of money be realised from gate-money. It is to be hoped that the Athletic Association will develope into a University Sports Association and there is plenty of opportunity for usefulness if it negotiates with the Colleges and Schools of Blacktown, and facilitates the acquisition of an athletic ground open to all colleges and supported by joint collegiate and university subscriptions. This is by no means impossible of realisation, but the proper place for the ground is not the People's Park but the large piece of ground fronting the Esplanade which is under the control of the Military authorities. The Association should lose no time in communicating on the subject with these colleges and schools.

NOTIFICATIONS.

BOMBAY.

List of appointments in the Educational Department for the month of December, 1897.

3rd. *December.* 1897.—The following appointments are made in the Northern Division; Mr. U. K. Munshi, 2nd Assistant Deputy Inspector, Kaira, to be Assistant Deputy Inspector Panch Mahals; Mr. L. A. Pandya, Assistant Deputy Inspector, Panch Mahals, to be 2nd Assistant Deputy Inspector, Kaira; Mr. A. U. Joshi, Head master, 2nd Grade Anglo-Vernacular School, Ranebennur, is appointed 15th Assistant Master, Belgaum High School.

14*th December* 1897. —Mr. D. R. Tamankar, is appointed Gymnastic Teacher, in the Naick High School, on probation; Mr. S. M. Devaskar, 4th, Clerk, in the office of the Educational Inspector, Northern Division, is appointed 3rd Clerk in the same office.

21*st December* 1897.—Mr. G. K. Phadnis, Head Master, Municipal School, Bhivandi, is appointhd Head Master Practising School, Poona; Mr. B. B. Apte, is appointed Master Practising School, Dhulia.

23*rd December* 1897.—The following appointments are made in the Elphinstone High School; Mr N. K. Daji 12th Assistant and *sub pro tem,* 8th to be permanent 11th Assistant; Mr. S. M. Vazifdar, 13th Assistant and acting 9th to be permanent 12th Assistant; Mr. M. J. Kadri, 14th Assistant, to be permanent 13th Assistant; Mr. U. G. Dewan, 15th Assistant and *sub pro tem,* 10th to be permanent 14th Assistant; Mr. J. B. Mehta, 16th Assistant and *sub pro tem,* 11th to be permanent 15th Assistant; Mr. B. M. Bahadwiji, 17th Assistant and *sub pro tem,* 12th to be permanent 16th Assistant; Mr. S. Mainudin, 18th Assistant, to be permanent 17th Assistant; Mr. R. M. Sutaria, 19th Assistant and acting 13 to be permanent 18th Assistant; Mr. B. R. Lentin, 20th Assistant, to be permanent 19th Assistant; Mr. Y. H. N. Kassami, 21st Assistant and *sub pro tem,* 14th to be permanent 20th Assistant; Mr. V. D. Marathi, 22nd Assistant, Gujarati Side, and *sub pro tem,* 18th Assistant, Marathi Side, to be permanent 21st Assistant, Gujarati Side.